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Market Response to Bank Loan Announcements in a Government-Controlled Banking System:

Evidence from China's Banks

A thesis
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Abstract of a thesis submitted in partial fulfilment of the
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Abstract

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by

Yuan Zhang

Under an enriched notion of "inside debt", the unique benefits of bank financing from screening and monitoring processes have been well documented in a large number of studies investigating the information content of bank loan announcements. Thus, bank loan announcements convey positive signals to the market, and the market response should be positive. However, previous studies were conducted extensively in the non-government-controlled banking systems, such as the U.S., the U.K., Canada and Australia. It is unclear whether the traditional predictions on the functions of banks for non-government-controlled banking systems also hold for government-controlled banking systems. This study examines the market reaction to bank loan announcements in the Chinese financial market, where the banking system is highly controlled by the Chinese government. The study also investigates the possible characteristics of lending banks, borrowers and loans that may influence share price reaction to bank loan announcements in the Chinese financial market.

Standard event study methodology is employed to test the share price returns of the borrowing firms in response to the bank loan announcements. The event window comprises of 21 trading days from the period beginning 10 days before the event date (day 0) and ending 10 days before the event date (day −10 to day 10).

Data used in this study are collected from the China Stock Market and Accounting Research Database and China Financial Newspaper Database. This study samples all bank loan announcements from companies listed on the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE) between 1996 and 2009. The share-split reform started in 2005 which affected the stock price of listed Chinese companies considerably. In order to avoid the influence of the share-split reform, this study divides the sample period into two sub-samples, namely, 1996 to 2004 and 2005-2009. A total of 501 bank loan announcements

are collected in the final sample for period 1996 to 2004 and 106 bank loan announcements for the period 2005 to 2009.

Contrary to what previous studies have found for bank loan announcements in non-government-controlled banking systems, this study finds significant declines in stock values of Chinese borrowing firms during bank loan announcements for the sample period 1996 to 2004. The result implies that both positive and negative bank loan announcement effects are possible, depending on whether the banking system is run on purely commercial goals in non-government-controlled banking systems or is subject to political intervention in government-controlled banking systems. Banks controlled by the government may have to lend to bail out poorly performing firms for political reasons. If these weak borrowing firms are prevalent, the direction of the market response to bank loan announcement should be negative, and vice versa. The results show that the negative effect is particularly significant for loans from Big Four state banks, state owned or controlled banks, banks with lower ranking and banks in provinces with lower marketization in credit allocation. The negative effect is also particularly significant for problematic borrowing firms including firms that are opaque, have a higher possibility of expropriation or tunnelling, have ineffective expropriation-reduction mechanisms, and are controlled by the state. The results also show that the negative effect is particularly significant for loans with greater amount, shorter term, with covenants/collateral, and less syndication. There is a significant difference in the market response to bank loan announcements among different bank loan purposes and among different industries.

This study finds no significant market response to bank loan announcements in the Chinese financial market for the sample period 2005 to 2009. However, the result shows that there is a significantly negative market response to bank loan announcements in the Chinese financial market for the sample period 1996 to 2004. This implies that the Chinese stock market does not view bank loan announcements unfavourably any longer after a series of reforms in the Chinese banking system.

Keywords: market response, bank loan announcements, government-controlled banking system, Chinese financial market, abnormal returns

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Abbrevations

ABC = Agricultural Bank of China

BOC = Bank of China

CBRC = China Banking Regulatory Commission

CCB = China Construction Bank

CDs = Certificates of Deposits

CCGR = China Corporate Governance Report

CSMAR = China Stock Market and Accounting Research

CSRC = China's Securities Regulatory Commission

DCC = Divergence between Cash-flow Rights and Control Rights

ICBC = Industrial and Commercial Bank of China

IPO = Initial Public Offerings

NPLs = Non-performing Loans

OLS = Ordinary Least Squares

PBOC = People's Bank of China

ROA = Return on Asset

SHSE = Shanghai Stock Exchange

SOEs = State-owned enterprises

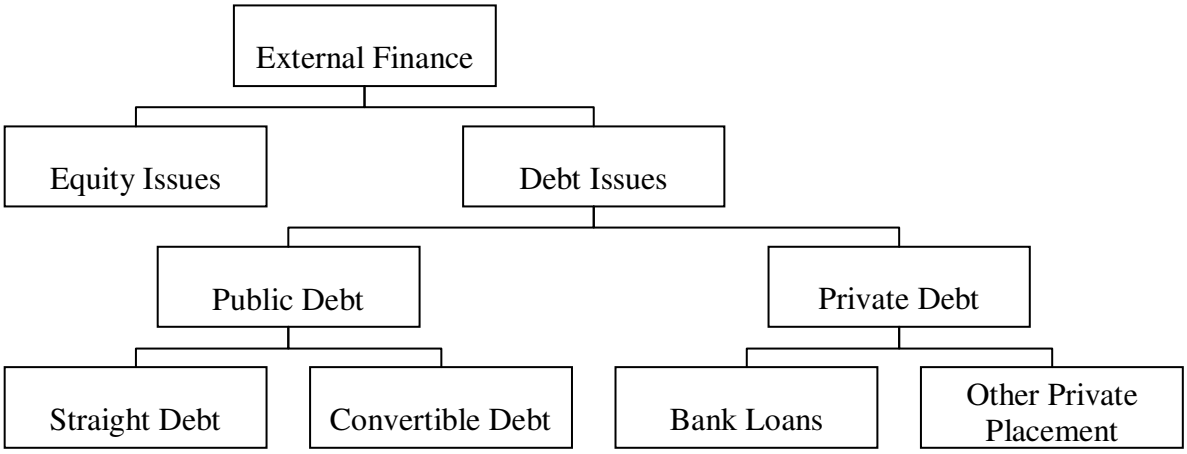
SZSE = Shenzhen Stock Exchange

Chapter 1
Introduction

1.1 Introduction

Early theory and empirical analysis of capital structure initially focused on the choice between issuing debt and equity (Dann & Mikkleson, 1986; Eckbo, 1986; Myers & Majluf, 1984), but recently the discussion has broadened to incorporate issues relating to the structure of firms' debt, such as the mix of corporate loans (Dennis, Nandy & Sharpe, 2000; Hadlock & James, 2002; James & Smith, 2000). In general, corporate loans can be categorised into public and private debt (Denis & Mihov, 2003; Diamond, 1991b; Fama, 1985; Hooks, 2003). A firm can raise funds through a private loan arrangement with financial intermediaries or from individual or institutional investors by issuing public debt such as bonds. Figure 1.1 below summarises the sources of external financing for companies.

Figure 1.1 Sources of external financing for companies



There is much research on the function and effect of bank credit agreements, private non-bank debt, and publicly placed straight debt issues on capital structure or, more specifically, corporate debt choice (Diamond, 1991b; Fama, 1985; James, 1987; Rajan, 1992). According to Fama (1985), bank financing and private placements are defined as "inside debt" because of their enhanced ability to gather information about their borrowers. Conceptually, as Diamond (1991b) points out, relationship lending can be considered as repeated extensions of "informed debt" by the same lender, whereas public debt can be thought of as "arms-length" financing or "outside debt" and lenders do not engage in proprietary information production. Private debt financing (primarily from commercial banks) is the most important source of external funds for nonfinancial firms in the U.S., Western Europe and Japan (Mayer, 1988),

but the determinants of the choice between the concentrated ownership of private (bank) debt and the diffused ownership of public debt (or arm's length private placements) for a firm in the capital acquisition process are ambiguous. There was an active debate concerning the choices of corporate financing in the 1980s when the U.S. financial market witnessed dramatic leveraged recapitalisation, which created the "junk bond" market. Specifically, from 1995 to 1996, the U.S. companies experienced a return of leverage in the capital raising process, adding vigour to the waves of discussion on debt choice (Bank of America Roundtable, 1997).

Theoretical studies in financial intermediation on the choices of financing can be readily traced to fundamental differences in information production and monitoring effects on borrowers of different types of debt (Benston & Smith, 1976; Fama, 1985; Johnson, 1998; Leftwich, 1983; Leland & Pyle, 1977). For example, Fama (1985) suggests that private lenders (especially banks) have a comparative advantage *vis-à-vis* other lenders in collecting information about borrowers and subsequently provide monitoring services about their behaviour. Leland and Pyle (1977) argue that all modern theories of financial intermediation are "information-based" paradigms where the bank's relations with borrowers enable them to obtain information not available to other providers of funds.

A large number of empirical studies (Dann & Mikkelson, 1984; James, 1987; James & Wier, 1988; Mikkelson & Partch, 1986) have attempted to identify the determinants between private and public debt by testing the impact of corporate loan announcements on the market value of a firm. For example, Dann and Mikkelson (1984) find that there is a significantly negative abnormal return to straight debt announcements, whereas Mikkelson and Partch (1986) and James (1987) find that the abnormal return to straight debt announcements is negative but not statistically significant. Moreover, Dann and Mikkelson (1984) report a significantly negative abnormal return to convertible debt announcements, but Mikkelson and Partch (1986) report a non-significantly negative abnormal return to convertible debt announcements. These results reveal that the average excess returns accrued to firms placing public debt are either significantly negative or not significantly different from zero providing evidence supporting the notion of "inside debt".

Past theoretical studies (Fama, 1985; Johnson, 1998; Leftwich, 1983; Leland & Pyle, 1977) and empirical works (Dann & Mikkelson, 1984; James, 1987; James & Wier, 1988; Mikkelson & Partch, 1986) are robust enough to provide evidence that private debt, as a whole, has a comparative information advantage over pubic debt. The choice between bank loans and other private debt, however, is still ambiguous. This gave rise to a particular stream

of literature evaluating private lenders' identity to investigate whether commercial loans from non-bank financial institutions are close substitutes for bank loans or bank loans comprise a unique source of debt financing[1] (Billett, Flannery & Garfinkel, 1995; James, 1987; Preece & Mullineaux, 1994). Billett et al. (1995) and Preece and Mullineaux (1994) suggest that there is no statistically significant difference between the market responses to bank loan and non-bank private loan announcements. However, James (1987) argues that a bank loan is indeed unique because only bank loan announcements can elicit positive excess returns from the borrowers.

One of the pioneer theoretical analyses on bank uniqueness was Fama (1985). Fama (1985) explains the uniqueness of bank loans based on the inside-debt notion where banks are able to access to private or inside information about borrowing firms that is not available to other institutions or investors. Thus, bank loans may solve the information asymmetry problem between lenders and borrowers that public debt issues or other "outside" debt cannot, and hence monitor the borrowing firms more efficiently than other investors.

There is a large body of literature that has tested the share price reaction to both bank loan announcements and private placements (Aintablian & Roberts, 2000; Armitage, 1995b; Billett et al., 1995; James, 1987; Preece & Mullineaux, 1994). For example, Billett et al. (1995), James (1987) and Preece and Mullineaux (1994) find that there is a significantly positive excess return to bank loan announcements in the U.S. These studies empirically confirm Fama's (1985) argument on the uniqueness of bank loans in the U.S. financial market. Aintablian and Roberts (2000) report a significantly positive abnormal return to bank loan announcements in the Canadian financial market but it has a different banking system from the U.S. This finding is consistent with prior studies done in the U.S. Armitage (1995b) find that the market also reacts positively to bank loan announcements using a data set drawn from the U.K. financial market where the banking system is different from other developed countries such as the U.S. and Canada. These studies arrived at a consensus conclusion that the market response to bank loan announcements was significantly positive in non-government-controlled banking systems such as the U.S., Canada, and the U.K.[2]. In government-controlled banking systems such as China and Taiwan (La Porta et al., 2002; Morck et al., 2009), however, the results are ambiguous. For example, Chen and Tsai (2006) and Cui and Zhao (2004) report significantly positive abnormal returns whereas Bailey,

[1] According to the information from the Federal Reserve Flow of Funds, James and Smith (2000) argue that corporate loans by non-bank financial companies have increased in recent years.

2 La Porta, Lopez-De-Silanes and Shleifer (2002) and Morck, Yavuz and Yeung (2009) categorise banking systems in the U.S., Canada, the U.K., Australia, New Zealand, Japan, Hong Kong and South Korea as non-government-controlled banking system.

Huang and Yang (2010) and Shen, Zhang and Chen (2007) find significantly negative results from their empirical studies. The ambiguity of the results may stem from the different financial systems or institutional settings across nations and industries in the sample. Furthermore, in terms of private placements, the results were also ambiguous. For example, Billett et al. (1995) and Preece and Mullineaux (1994) report significantly positive abnormal returns whereas Aintablian and Roberts (2000), James (1987) and Mikkelson and Partch (1986) document a non-significant stock price response from their empirical studies.

Beside the inconsistent results about the direction of the corporate loan announcement effect, stock traders may infer information about the conditional probability of lender characteristics, borrower characteristics, and loan characteristics. Accordingly, many researchers disaggregated corporate loans based on the characteristics of the lender, borrower and loan to investigate their effects on the size of market response to corporate loan announcement.

In terms of lender characteristics, Preece and Mullineaux (1994) divide the corporate loan announcement effect based on the lenders' identity (bank versus non-bank) and suggest that the lenders' identity is not one of the factors that may impact on the observed stock price reaction to loan announcements; it is the terms and characteristics offered by lenders rather than the types of financial intermediaries that elicit abnormal returns to borrowers. When all the lenders were banks, some bank characteristics including their reputations (Aintablian & Roberts, 2000; Billett et al., 1995; Chemmanur & Fulghieri, 1994; Thakor, 1996), rankings (Bailey et al., 2010) and locations (Bailey et al., 2010) may affect the size of the market response to bank loan announcements.

With regard to borrower characteristics, prior studies identified that borrowers' informational opaqueness (Denis & Mihov, 2003; Fields, Fraser, Berry & Byers, 2006; Krishnaswami, Spindt & Subramaniam, 1999; Slovin, Johnson & Glascock, 1992), their credit rating (Denis & Mihov, 2003; Diamond, 1991b; James, 1987; Rajan, 1992) and their financial status (Brown, James & Mooradian, 1993; Fields et al., 2006; Hadlock & James, 2002; James, 1996) may affect the size of the corporate loan announcement effect. For example, Slovin et al. (1992) suggest that the information content for corporate loan announcements for small firms is more valuable than that for large firms. This is because small firms are inclined to suffer from informational opaqueness.

Recently, the expropriation problem of outside investors by insiders in listed firms has attracted great attention in the finance and accounting area (Jensen & Mecking, 1976; Johnson, La Porta, Lopez-de-Silanes & Shleifer, 2000; La Porta, Lopez-de-Silanes & Shleifer, 1999;

Shleifer & Vishny, 1997). Jensen and Mecking (1976) suggest that, when ownership is widely diffused (i.e. 100 percent small shareholders), it is impossible for each small shareholder and debt holder to influence the firm directly. This leads to the separation of ownership and control, in which managers (agents) implicitly act in the shareholders' and debt holders' (principals') interests to maximize the firm value. In this scenario, each small shareholder or debt holder has less incentive or contractual mechanisms to align the interests of managers with outside shareholders. Therefore, managers may disadvantage shareholders and debt holders by expropriating some of the company's assets. However, Johnson et al. (2000), La Porta et al. (1999) and Shleifer and Vishny (1997) argue that, when the ownership is concentrated in the hands of one large shareholder, the controlling owner who acts as an agent on behalf of all the minority shareholders makes the decisions. Controlling shareholders can easily abuse their power and expropriate the firm's wealth by maximizing their private benefit at the expense of minority shareholders and outside investors. Banks, as outside investors, have inevitably been involved in the expropriation problem. Thus, a number of studies argue that the borrowers' expropriation problems may affect the size of the corporate loan announcement effect (Bailey et al., 2010; Khanna, 2000; Tian, 2004; Wei & Wan, 2007).

With regard to loan characteristics, previous studies found that loan types (Billett et al., 1995; Lummer & McConnell, 1989; Preece & Mullineaux, 1994; Slovin et al., 1992), maturity (Aintablian & Roberts, 2000; Flannery, 1986; Kale & Noe, 1990), covenant (James & Smith, 2000; Park, 2000; Rajan &Winton, 1995), collateral (Carey, Post & Sharpe, 1998; James & Smith, 2000; Rajan & Winton, 1995), syndication (Houston & James, 1996; Preece & Mullineaux, 1996; Rajan, 1992), and size of loans (Easterwood & Kadapakkam, 1991; Krishnaswami et al., 1999) may influence the size of the corporate loan announcement effect. For instance, Lummer and McConnell's (1989) study focuses on the effect of bank loan types on the market response to corporate loan announcements and concludes that a significantly positive reaction occurs only for announcements of extensions or renewals of existing agreements and not the initiation of a bank announcement.

Most studies that examined the corporate loan announcement effect are conducted in the U.S., but a number of studies have also extended this topic to other financial markets, such as Canada (Aintablian & Roberts, 2000; André, Mathieu & Zhang, 2001; Mathieu, Robb & Zhang, 2006), the U.K. (Armitage, 1995b; Franks & Sussman, 2005), Australia (Fery, Gasbarro, Woodliff & Zumwalt, 2003), New Zealand (Koh, 2001), Japan (Kang & Liu, 2008), Hong Kong and South Korea (Boscaljon & Ho, 2005). These studies suggest that, when banks are independent from the state, they can grant loans only for profit-maximizing rather than

political or social objectives. It implies that the decision to grant loans by banks is based only on the borrowing firms' performance. Thus, the approval of giving loans is considered as a positive signal by the stock market. Banks have indeed played a role in screening and monitoring borrowing firms under the enriched notion of "inside debt".

Previous studies have enhanced our understanding of the bank loan announcement effect in non-government-controlled banking systems. However, it is unclear how the market reacts to bank loan announcements in a government-controlled banking system like China.

Like most countries, China's functioning financial system includes the financial markets and financial intermediaries. However, the financial system in China is dominated by financial institutions, especially the banking sector, since China's equity and corporate bond markets are still in their initial development accounting for a small proportion of the total corporate financing (Allen, Qian & Qian, 2005a, 2005b).

China's equity markets have been growing very fast since their inception in 1990, but they are still not comparable to the financial institutions, especially the banking industry, in terms of their scale and importance for entire economy (Allen et al., 2005a, 2005b). For example, total bank loans stood at 138.1% of GDP at the end of 2004 and the combined market value of China's two stock exchanges (Shanghai and Shenzhen stock exchanges) comprised only 27.1% of GDP (Allen et al., 2005a, 2005b). Allen et al. (2005a) also find that, in terms of size, the ratio of total bank credit to GDP in China was highest (with a weighted average of 111%) among the sample countries including England, France, Germany, Scandinavia, and China[3]. However, in contrast to the banking industry, Allen et al. (2005a) find that China's stock markets are smaller than the sampled countries both in terms of market capitalization and the total value traded as a fraction of GDP.

Moreover, China's bond market, launched in 1981, has been growing slowly. Government bonds have dominated the bond market, accounting for about 95% of the total domestic bond market and 28.9% of GDP by 2003 (Chen & Thomas, 2005). In terms of corporate bonds, the market is very much undeveloped and virtually non-existent. For example, Allen et al. (2005a) find that corporate bonds account for less than 1% of GDP in China at the end of 2001. Table 1.1 shows that corporate bonds account for less than 3% of GDP in China at the end of 2006.

[3] Allen et al. (2005a) compare China's financial system to those of La Porta, Lopez-De-Silanes, Shleifer and Vishny's (1997, 1998) sample countries.

Table 1.1 China's domestic corporate bonds (RMB billion).

Year	Total Corporate Bonds Outstanding	% of GDP
1995	33.27	0.55
1996	59.77	0.84
1997	52.10	0.66
1998	67.69	0.80
1999	77.90	0.87
2000	86.20	0.87
2001	100.86	0.92
2002	133.36	1.11
2003	169.16	1.25
2004	201.86	1.26
2005	402.81	2.20
2006	553.29	2.61

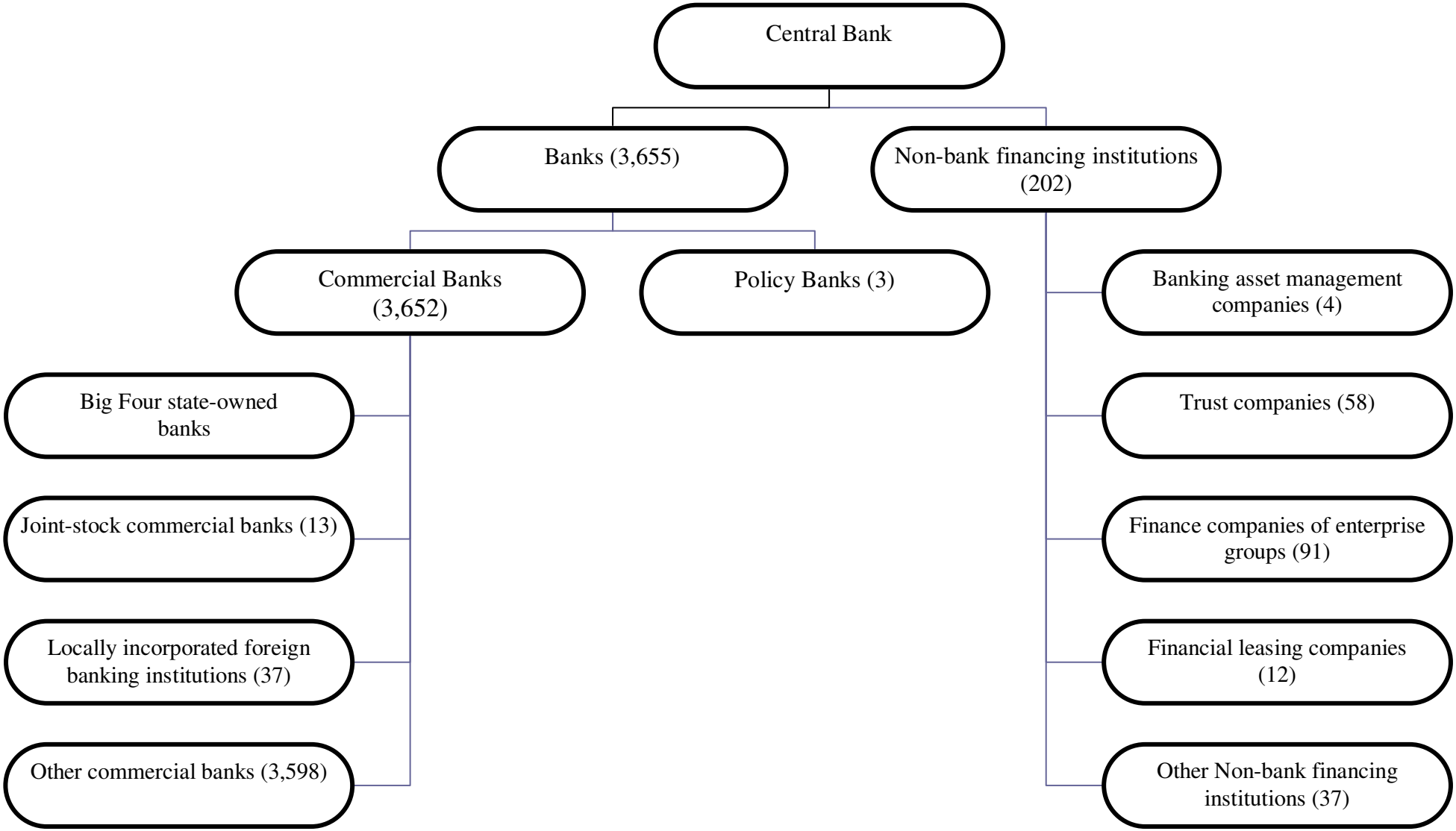
Source: China Statistical Yearbook compiled by National Bureau of Statistics of China

The small size and slow growth of China's corporate bond market may be the result of many barriers to issuing corporate bonds. First, it is difficult for Chinese companies to obtain the high issuer qualifications. Second, credit protection is poor for the following reasons: (1) there is not yet a bond-rating agency able to monitor company performance; (2) Chinese companies' opaque accounting practices provide bondholders with insufficient information; (3) there is no sound framework to deal with companies that renege on their bond obligations (Bailey et al., 2010; Chen & Thomas, 2005).

The financial system in China is dominated by financial intermediaries that include banks and non-bank financial institutions[4], such as trust and investment companies, finance companies associated with enterprise groups, financial leasing companies, securities companies, and credit rating companies (Lardy, 1998). According to China Banking Regulatory Commission 2009 Annual Report, China's banking sector comprises of 3 policy banks, Big-Four state-owned banks, 13 joint-stock commercial banks, 143 city commercial banks, 43 rural commercial banks, 196 rural cooperative banks, 11 urban credit cooperatives, 3,056 rural credit cooperatives, one postal savings bank, 37 locally incorporated foreign banking institutions, 148 village and township banks, 4 banking asset management companies, 58 trust companies, 91 finance companies of enterprise groups, 12 financial leasing companies, 3 money brokerage firms, 10 auto financing companies, 8 lending companies and 16 rural mutual cooperatives as of end of 2009. The total number of financial institutions registered in China is 3,857 at the end of 2009. Figure 1.2 shows an overview of China's financial intermediaries at the end of 2009.

[4] In the mid-1980s, several new types of non-bank financial institutions began to emerge.

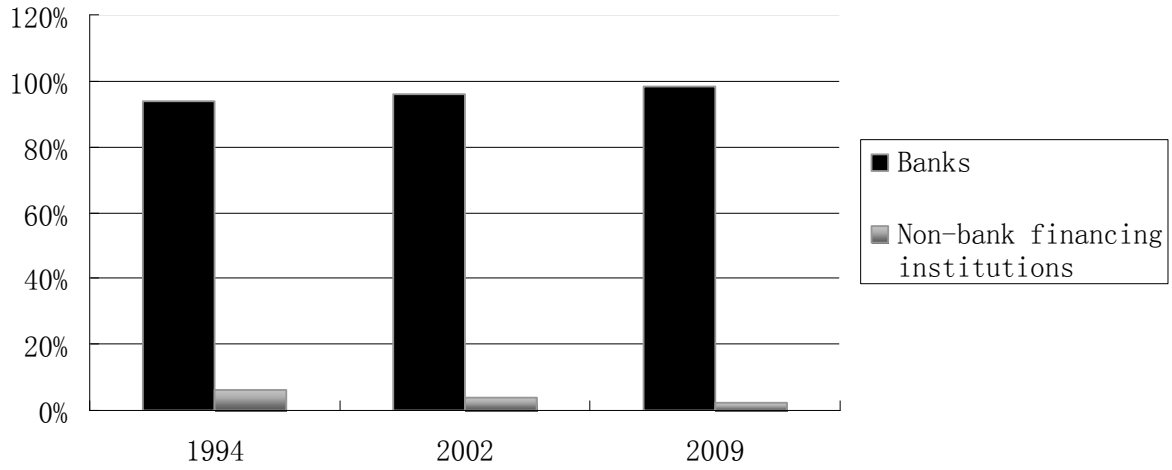
Figure 1.2 Financial intermediaries in China at the end of 2009



Source: China Banking Regulatory Commission 2009 Annual Report

However, the scale of non-bank financing institutions is much smaller than that of banks. Figure 1.3 presents the total assets of financial institutions in China. The total assets of banks accounted for 94%, 96% and 98% of the total assets of all financial institutions at the end of 1994, 2002 and 2009, respectively (see Figure 1.3). Non-bank institutions accounted for only 6%, 4% and 2% of the assets of the financial sector, respectively.

Figure 1.3 Total assets of financial institutions in China at the end of 1994, 2002 and 2009



Source: Almanac of China's finance and banking (1995; 2003) and China Banking Regulatory Commission 2009 Annual Report

In addition, banks prefer to grant credits to state-owned enterprises (SOEs) and publicly listed companies. Non-bank financial institutions, acting as a substitute for banks, grant most of their loans to small private firms that have problems in getting a loan from banks (Allen et al., 2005a, 2005b; Cheng & Degryse, 2007, Xie, 1998). Thus, banks are still the dominant providers of debt capital to listed firms in China.

Several studies have examined the market response to bank loan announcements in the Chinese financial market, but the findings of these studies are inconsistent. For example, Cui and Zhao (2004) find a significantly positive market response to bank loan announcements in their study, but Bailey et al. (2010) and Shen et al. (2007) report significantly negative market reaction. Bailey et al. (2010) explain these findings by suggesting that state-controlled banks may have to lend to some weak firms for political reasons such as avoiding widespread unemployment and social instability. If these weak borrowers are prevalent, the market response to bank loan announcement should be negative, and vice versa.

In addition to the inconsistent results, the data set in Bailey et al.'s (2010), Cui and Zhao's (2004) and Shen et al.'s (2007) studies are not recent. For example, the sample period in

Bailey et al.'s (2010) study is from 1999 to 2004, January 1, 2004 to May 20, 2004 in Cui and Zhao's (2004) study and January 1, 2005 to November 18, 2005 in Shen et al.'s (2007) studies. Thus, these studies can not capture the recent reforms in the Chinese banking system and financial market.

1.2 Problem Statement

Based on the above discussion, the issue of the market response to corporate loan announcements is still controversial, especially in China with its different financial system or institutional settings. In addition, much has happened in the Chinese banking system since 2005, and it is plausible that China's banking system has improved since then. However, no previous studies have used updated data to examine the issue of the market response to bank loan announcements in the Chinese financial market. Further, the issue of how the characteristics of the bank, borrower and loan affect the size of corporate loan announcement effect is still ambiguous, especially the increasing expropriation problem of borrowing firms encountered by external investors.

The purpose of this study is to address these controversies and ambiguities by examining bank loan announcements in the Chinese financial market and investigating whether the expropriation problem affects the market response to bank loan announcements.

China represents an ideal experimental setting for investigating the bank loan announcement effect since China's banking system, corporate structure, institutional structure and legal environment are very different from those in many developed markets and other emerging and transition economies (Bailey et al., 2010; Cai, Fairchild & Guney, 2008, Chen, Firth, Gao & Rui, 2006; Fan, Lau & Young, 2007). This has different implications in terms of refinancing means, bankruptcy procedures, information asymmetries and expropriation problems. Foremost in the unique characteristics is that most banks and most borrowers in China are mostly controlled by the state. In such a government-controlled banking system, government-owned banks have to assume policy lending (lending based on policy objectives or political criteria and connections rather than creditworthiness) functions to minimize unemployment and social instability. Listed firms owned or controlled by the state, thus, are able to receive funds from bank loans although they do not meet internationally accepted standards for making payments on time. This is because these enterprises have served as the main source of employment and social safety net for much of the population.

The ownership structure of China's listed firms is typically highly concentrated. According to the 2003 China Corporate Governance Report (CCGR), the percentage of the company's

shares owned by the largest shareholder in China's listed firms averaged 44.26% at the end of 2002. In addition, over 40% of the largest shareholders have more than 50% of their company's shares; and firms with the top five shareholders owning more than 50% of the company's shares are 74.4% of all China's listed companies. There is also a divergence between the voting rights and the cash-flow rights of controlling shareholders since most Chinese listed firms have a parallel or pyramid holding company structure (Fan, Wong & Zhang, 2005, 2007). Given the high concentration of ownership and high degree of separation of ownership and control in China, the expropriation problem is likely to be severe. Controlling shareholders generally have incentives and opportunities to expropriate outside investors (minority shareholders and creditors) to enjoy their private benefits.

Several researchers have examined the incidence of agency problems of controlling shareholders in China from different perspectives. For example, Jian and Wong (2003) and Yu (2004) examine expropriation problems from the related-party (also known as "connected") transaction perspective; Chen, Jian & Xu (2008) and Yu (2004) examine expropriation problems from the dividend perspective; Ding, Zhang and Zhang (2007), Jian and Wong (2003), Liu and Lu (2003) examine expropriation problems from the earning management perspective; and Gao, He and Yi (2006), Gao and Kling (2008), Tian (2004) and Wei and Wan (2007) examine expropriation problems from asset appropriation perspectives. Bailey et al. (2010) initially claims that the expropriation problem exists in loan announcements. The authors argue that it is likely for Chinese banks to have evolved into the expropriation problem of Chinese listed firms that have a highly concentrated ownership structure. However, these studies concentrated only on specific cases or firm performance. Little research has shed light on the roots of the expropriation problem, that is, the divergence of cash-flow and voting rights. Thus, this study will fill this gap by examining the incidence of expropriation problems employing the divergence between the voting rights and the cash-flow rights and firm performance.

1.3 Research Objectives

The general objective of this research is to evaluate the market response to bank loan announcements in the Chinese financial market. It also investigates whether the expropriation problem of listed firms involves the Chinese banking system.

The specific research objectives include the following:

1. To examine how bank, borrower and loan characteristics may influence the share price reaction to bank loan announcements in the Chinese financial market.

2. To examine the incidence of the expropriation problem of the banking system by the controlling shareholder among companies listed on the Chinese Stock Exchange.

3. To evaluate the influence (or effectiveness) of ownership structure and internal corporate governance mechanisms in limiting or controlling the magnitude of the expropriation problem between Chinese listed firms and banks.

In order to achieve the objectives of this study, the conventional event study methodology will be applied to examine the market response to all bank loan announcements made by companies listed on the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE) over the period 1996-2009. The decision to choose 1996 as the starting year is due to the availability of data. The share-split reform started in 2005 which affected the stock price of listed Chinese companies considerably. In order to avoid the influence of the share-split reform, this study divides the sample period into two sub-samples, namely, 1996 to 2004 and 2005-2009. A total of 501 bank loan announcements are used in the sample period 1996 to 2004 and 106 bank loan announcements in the sample period 2005 to 2009. In addition, this study will use the degree of divergence between cash-flow rights and control rights as well as firm performance as proxies for the possibility of expropriation.

1.4 Contribution by the Research

This study will contribute to the rapidly growing literature on banking and corporate governance. First, this study provides an analysis of the market response to bank loan announcements by the Chinese banking system, which is different from previous research that focused on developed capital markets. Previous research documented that banks may have a comparative advantage in gathering information and providing monitoring services not duplicated elsewhere in the capital market. However, the uniqueness of banks may not be replicable in different financial markets. This study explicitly investigates whether the theoretical predictions, tested in non-government-controlled banking systems, also hold in a government-controlled banking system such as China with a different corporate financial policy and bank regulatory policy.

Secondly, this study examines how banks and borrowers with Chinese characteristics affect the market response to bank loan announcements. Foremost among the unique characteristics is that most lenders and borrowers are controlled by the state. Banks in China may have to take responsibility for a number of "policy loans" for social stability or other political reasons. Moreover, it is likely that the funds from a bank loan are misused by controlling shareholders since most Chinese listed firms have an excessive concentrated ownership structure. Thus,

investigating the characteristics of lenders and borrowers in China will have implications for Chinese economic reformers and regulators who are striving to improve the efficiency of bank loans.

1.5 Outline of the Thesis

The rest of thesis is organised as follows. Chapter 2 presents an overview of the relevant literature on market response to bank loan announcements. Chapter 3 discusses the research methodology and data collection. Analysis of the data and empirical results are presented in Chapter 4. Chapter 5 summarises the major findings and implications, followed by the limitation of the research and recommendations for future research.

Chapter 2
Literature Review

2.1 Introduction

This chapter reviews the literature related to the market response to bank loan announcements in both non-government-controlled banking systems and government-controlled banking systems. There are two strands of studies on the bank loan announcements. The first strand focuses on the direction of the market response to bank loan announcements. The second strand of studies focuses on the size of the market response to bank loan announcements. Section 2.2 reviews the literature that addresses the direction of the market reaction to bank loan announcements in non-government-controlled banking systems. Section 2.3 reviews the studies that investigate the direction of the market reaction to bank loan announcements in government-controlled banking systems. Section 2.4 discusses the bank characteristics that might affect the magnitude of the bank loan announcements effect in both non-government-controlled banking systems and government-controlled banking systems. Section 2.5 reviews evidence emphasising borrower characteristics in both non-government-controlled banking systems and government-controlled banking systems. Section 2.6 reviews studies on loan characteristics in both non-government-controlled banking systems and government-controlled banking systems. Different studies theoretically and empirically investigate how bank, borrower and loan characteristics influence the stock market response to bank loan announcements. It is difficult to distinguish the literature that discusses the above three characteristics in isolation since these characteristics are often interrelated and have some causal relationship. They are discussed separately in this chapter in order to simplify the analysis of bank loan announcement effects. Section 2.7 provides a summary of the chapter.

2.2 Direction of the Market Response to Bank Loan Announcements in Non-government-controlled Banking Systems

Researchers (Aintablian & Roberts, 2000; Fields et al., 2006; James, 1987; Preece & Mullineaux, 1994) have investigated the direction of market reactions to bank loan announcements in non-government-controlled banking systems, i.e. the sign of bank loan announcement effect in non-government-controlled banking systems, but their findings are ambiguous. Some studies report positive market responses but others report negative market reactions.

2.2.1 Positive Market Resposne

The literature on bank loans, in general, reports a positive market reaction to bank loan announcements since bank loans are typically unique compared with other forms of debt.

2.2.1.1 Uniqueness of Bank Loans

Bank loans are narrowly defined as loans from commercial banks or other depository institutions. Debt from other private sources, such as private placements, suppliers, and finance companies, is categorised as other private debt. There are two reasons for this classification. First, bank loans are generally regarded as one special form of external financing, where banks obtain information via a deposit relationship (and potentially other sources) that might not be available to other providers of finance, including bond and stock investors (Fama, 1985). Secondly, unlike the announcement effects of other private security issues, bank loan announcements elicit significantly positive excess returns to the borrowers' common stock[5].

Fama (1985) initially examines the incidence of reserve tax on bank certificates of deposits (CDs) in the U.S. to investigate the uniqueness of banks. The author compares the average rates of interest on large CDs with other close substitutes for bank CDs such as high-grade commercial paper or bankers' acceptances and finds no significant difference between them. Because commercial banks are required to hold non-interest-bearing reserves in specified ratios to their demand deposits and CDs are also subject to bank reserve requirements in the U.S., this insignificant result implies that the CD holder does not bear the reserve requirement tax. Therefore, Fama (1985) argues that, since other privately placed or publicly placed securities on open-market are not subject to reserve requirements, there must be something special about bank loans relative to other credit contracts that motivate borrowers to pay higher interest rates than other securities of equivalent risk.

Fama (1985) first explains the special role of bank loans in a company's information process by analysing the difference between inside and outside debt. The author defines inside debt as a contract where the debt holders have the ability to acquire the information from a firm's decision processes not otherwise publicly available. Bank loans are a form of inside debt[6], since banks have privileges that enable them to access inside proprietary information about the borrowers that is not available to other institutions or investors[7]. Fama (1985) further

[5] Evidence from a number of empirical studies (James, 1987; Lummer & McConnel, 1989; McDonald, 1994; Mikkelson & Partch, 1986) provides support for Fama's (1985) argument.
[6] Similar arguments are in found Bernanke (1983), Kane and Malkiel (1965) and Myers and Majluf (1984).
[7] Fama (1985) attributes banks' unique advantage in obtaining information about borrowers based on the hypothesis that banks hold a firm's deposit (or cheque) account, especially a daily settlement account, which

argues that the short-term nature of bank loans and the repeating process (rollovers) triggers periodic evaluation of the organisation's performance to signal the firms' creditworthiness. By using these types of renewal signals, banks are able to avoid duplication of information costs. In addition, compared with other lenders, the ongoing history of the deposit relationship allows a bank to effectively monitor the loans at a lower cost (Black, 1975; Diamond, 1984; Kane & Malkiel, 1965; Leland & Pyle, 1977). Consistent with Black's (1975) cost advantage argument, Fama (1985) claims that it is more valuable for small companies to finance with bank loans since it costs more to provide a set of publicly available information needed in using outside debt or equity. Therefore, Fama (1985) reaches two conclusions: CD holders do not bear the research requirement tax and therefore bank loans are special; secondly, there are two main attractions unique to bank debt, the ability of banks to obtain inside information and the less costly services to monitor the loans.

James (1987) extends Fama's (1985) study by employing an alternative method to investigate the incidence of the reserve tax. The author examines the performance of CD yield in relation to the yields on other securities in reference to changes in the reserve requirements. James (1987) assumes no changes in insurance costs occurring at the same time, so an increase in reserve requirements should decrease the profits of CDs relative to other profits if the reserve tax is paid by the depositors. In fact, James (1987) finds that the average CD rates do not differ in two different required-reserve regimes. Therefore, James' (1987) results suggest Fama's (1985) conclusion that the reserve tax falls on borrowers and reinforce the Fama's (1985) notion that bank loans possess unique informational properties.

James and Wier (1988) investigate the possibility that banks have some unique advantages in providing capital to the market and find that inside debt (loans from financial institutions – mainly commercial banks) appears to be a major source of financing for firms. The authors explain firms' preference in financing by enumerating the advantages of using inside debt as follows. First, inside debt may solve the information asymmetry problems that firms face in raising funds in public capital markets. Second, banks and financial institutions, as inside debt holders, can monitor the borrowing firms effectively with the use of restrictive covenants after they issue the debt. The third advantage of inside debt is that it may be able to help firms maintain confidentiality about their investing opportunities. Finally, inside debt may help borrowers avoid consuming money and time in issuing new securities.

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gives the bank easy access to comprehensively view the borrowers' cash flows over time. Thus, the bank can monitor the borrowers more effectively.

To further investigate the unique role of banks, Dahiya, Puri and Saunders (2003) take a different approach and study the announcement of a sale of a borrower's loans by its lending bank. The authors find that the stock price of those firms whose bank loans have been sold by the initial lending banks reacts negatively to the sale announcements. This negative impact is pronounced for sub-par loan (or distressed loan) sales, where the information effects of bank sales are likely to be greatest and where they have a more representative sample of loan sales. These findings are consistent with a negative information effect arising from loan sales. Furthermore, Dahiya et al. (2003) find that firms whose loans are sold have a higher probability of bankruptcy than firms that are not. However, those firms whose loans are sold are not the worst performers in their respective industries during the year before selling off their loans. This implies that outside investors are not able to identify the degree of weakness of the borrowing firms based on ex-ante publicly available information alone. Dahiya et al.'s (2003) findings support previous arguments (Cambell & Kracaw, 1980; Diamond, 1984; Fama, 1985; James, 1987) that banks are able to detect borrowers' information not readily observable to other investors.

However, both James (1987) and Mikkelson and Partch (1986) report statistically significant and negative stock price responses to announcements of other privately placed debt. These findings can not be explained by the inside-debt argument[8]. If privately placed debt belongs to the inside-debt category, it should have the same comparative advantage over other outside debts as that of banks. Therefore, it is expected that private placement is able to enhance returns to shareholders of borrowing firms and thereby reduces the information asymmetries or monitors firm performance. This expectation is based on the view that banks and other private lenders are generally assumed to be better informed about a firm's prospects than public securities holders. Thus, the findings of a non-positive stock response for private debt in James' (1987) and Mikkelson and Partch's (1986) studies suggest that the uniqueness of bank loans is not only because they are inside debts but they can also provide some special services with their lending activity that are not available from other lenders (James, 1987). For example, banks may elicit a positive signal by monitoring the borrower (Datta, Iskandar-Datta & Patel, 1999; Diamond, 1991b; Pennacchi, 1988), or helping a borrower to establish a reputation (Datta et al., 1999; Diamond, 1991b).

[8] Fama (1985) categorises private placements and other non-bank finance institutions as inside debt since private placement buyers are better informed about the issuing firm than are public security holders.

2.2.1.1.1 Monitoring

Campbell and Kracaw (1980), Diamond (1984, 1991b), Fama (1985), Leland and Pyle (1977) and Ramakrishnan and Thakor (1984) theoretically modelled the role of monitoring played by financial intermediaries to highlight the unique monitoring function of banks. These studies propose that bank financing utilised economies of scale in information production to eliminate the adverse selection and moral hazard costs of new debt issuing through gathering inside information to bridge information asymmetries between lenders and borrowers. For example, Fama (1985) holds that banks can possess an informational advantage over other outside (public) debt holders that enables banks to provide more efficient monitoring by reducing the monitoring and bonding costs. This availability of such privileged information banks enjoy typically arises because of their ability to observe confidential/private information about borrowers.

Similarly, Diamond (1991b) argues that directly placed debt is a contract with terms and loan-granting decisions that rely only on public information, whereas a bank loan employs this information plus costly information from monitoring of the borrower's performance as a condition in granting a loan. The author concludes that banks have more scale economies in information production, which enables them to engage in superior debt-related monitoring. Furthermore, Diamond (1991b) suggests that bank monitoring can either serve as a screening risk assessment device before the loan is approved, or help align the self-interested managers' action thus providing incentives for managers to pursue ex-post efficient investment strategies.

Datta et al. (1999) find evidence to support the importance of bank monitoring by showing that the existence of bank cross-monitoring significantly lowers the at-issue spread for initial public debt offers. Krishnaswami et al. (1999) suggest that bank monitoring is beneficial because it can help to reduce the agency costs of public debt through covenants and renegotiation. Almazan and Suarez (2003) also argue that banks can protect shareholders' interests by monitoring the borrowing firm's actions and forcing managers to avoid "pet projects".

Pennacchi (1988) develops a theoretical model where banks may improve the returns on loans by monitoring borrowers. The author notes that the banks' incentive to effectively screen loan applicants and monitor borrowers reduces once the loan is securitized and this limits the range of assets that can be profitably securitized. Therefore, Pennacchi (1988) argues that the determinant of banks' ability to sell loans is the investor's perception of the banks' incentive to monitor the loans they sell and overcome moral hazard problems. Pennacchi (1988) also argues that giving the bank a disproportionate share of the gains from monitoring in designing

an optimal loan sales contract enables banks to sell a greater amount of the loan and therefore make a higher level of profit while maintaining monitoring efficiency. Finally, Pennacchi (1988) concludes that the difference between bank loans and marketable securities is that the borrowing firms monitored by banks can create value.

2.2.1.1.2 Helping Borrowers to Establish a Reputation

Diamond's (1991b) "life cycle" model considers how banks help borrowers to establish a better reputation. The author predicts that costly bank-monitored debts are primarily taken on by new borrowers to acquire a credit reputation. During this period, banks perform delegated monitoring of firms by taking diversified portfolios. Once a good reputation for a borrower is established, it is more likely for the borrower to acquire financing from the publicly placed debt market to save costly monitoring. In addition, helping borrowers to establish a reputation can solve the moral hazard problem since a better reputation with time alleviates the adverse selection problem.

Datta et al. (1999) test Diamond's (1991b) reputation-building argument and confirm that firm reputation established by banks (proxies by the length of the bank/firm relationship) could significantly reduce the cost of external debt capital. Denis and Mihov (2003), Hale and Santos (2008) and Krishnaswami et al. (1999) also empirically support the reputation-building predictions of Diamond's (1991b) model by concluding firms that have not gained a good credit reputation preferred bank debt financing rather than non-bank or public financing since banks can help them to establish better reputation.

Boot (2000) and Ongena and Smith (2000) conclude that the combination of theoretical benefits that bank loans have a competitive advantage in accessing detailed inside information or providing monitoring and developing reputation services (Datta et al., 1999; Diamond, 1991b; Fama, 1985; James, 1987; James & Wier, 1988) and the empirical evidence that bank loans generate a positive announcement effect (Best & Zhang, 1993; James, 1987; Lummer & McConnell, 1989; Mikkelson & Partch, 1986) result in the labelling of loans from banks as "special" or "unique" based on U.S. data.

A number of studies have discussed the bank loan announcement effect in other non-government-controlled banking systems such as Canada (Aintablian & Roberts, 2000; André et al., 2001; Mathieu et al., 2006), the U.K. (Armitage, 1995b), Australia (Fery et al., 2003), New Zealand (Koh, 2001), Japan (Kang & Liu, 2008), Hong Kong and South Korea (Boscaljon & Ho, 2005) to confirm if the findings of prior studies of bank loan announcements based exclusively on the U.S. data hold also in different banking systems.

These studies generally find that bank loan announcements display significantly positive abnormal returns, supporting the U.S. studies that commercial banks play a unique role in reducing information asymmetries in non-government-controlled banking systems.

2.2.1.2 Challenges to the Uniqueness of Bank Loans

Billett et al. (1995) and Preece and Mullineaux (1994) challenge the uniqueness of bank loans and conclude that it is the terms and characteristics offered by the lenders rather than the types of financial intermediaries that elicit abnormal returns from the borrowers.

Preece and Mullineaux (1994) assume that, if market reactions to bank loan announcements and non-bank announcements are similar, it implies that banks have lost their unique advantage. Using the U.S. data, Preece and Mullineaux (1994) find that there is no statistically significant difference between the market response to announcements of bank loans and non-bank loans[9]. Consistent with this argument, Billett et al. (1995) also report positive and marginally significant abnormal borrowers' returns to both bank and non-bank loans.

However, James' (1987) study shows that the announcements of other kinds of privately placed debt are associated with small negative responses whereas only bank loans generate significantly positive abnormal returns. James and Smith (2000) further conjecture that the difference between these three findings may contribute to various types of non-bank loans examined by each study. Both Billett et al. (1995) and Preece and Mullineaux (1994) focus on commitment-type non-bank loans made by non-bank lenders, which resemble bank debt, but James (1987) analyses mostly longer-maturity private placements, which resemble publicly traded debt contracts.

Best and Zhang (1993) argue that the information content of bank loan announcements is not only determined by banks but also relies on other non-bank information. To support this argument, Best and Zhang (1993) examine the information content of bank loans by addressing two issues. First, the authors recognise that financial institutions other than banks also evaluate and monitor borrowing firms. Second, the authors investigate whether banks expend equal resources to evaluate all borrowing firms. By employing financial analysts' percentage earning forecast errors and the most recent earnings forecast revisions as non-bank information, Best and Zhang (1993) find that banks first rely on other information resources to screen and monitor the borrowers and decide where to best allocate their evaluation efforts. If the non-bank indicators are reliable and signal improving prospects, banks do little further

[9] Preece and Mullineaux (1994) classify insurance companies, commercial companies and non-bank subsidiaries of bank holding companies as non-bank institutions.

investigation, resulting in the production of marginal information. However, if the indicators are noisy and signal declining prospects, banks have an incentive to expend effort in evaluating the borrowers, and hence convey more useful information.

In addition, Greenbaum, Kanatas and Venezia (1989), Rajan (1992) and Sharpe (1990) question the benefit of bank debt by arguing that bank financing and monitoring may impose endogenous costs on firms. This problem is later substantiated by several empirical studies (e.g. Detragiache, Garella & Guiso, 2000; Diamond, 1993; Kang & Stulz, 2000; Ongena & Smith, 1999, 2000). These studies show that firms using bank credit could not approach new outside financiers for refinancing, that is, they are locked into their original banks. This lock-in problem is possible because in forming a lending relationship, a bank, or other private lender, is able to obtain proprietary information about the borrowing firm. This may create an "information opaqueness" or hold-up problem in which it is impossible for the borrower to approach any uninformed potential lenders for follow-on financing. This is because, as a privileged lender, the bank has an incentive to generate significant non-transferable information about the firm to prevent other alternative investors competing on a par with it. As a consequence, the ex-post information monopoly provides the original bank with substantial bargaining power. The incumbent bank, therefore, may be able to expropriate surplus for successful projects at the refinancing stage. The expectation of additional rent extraction by the bank, in turn, curbs incentives for the firm to exert effort in raising profits in the first place (Diamond, 1993; Kang & Stulz, 2000; Ongena & Smith, 1999, 2000; Rajan, 1992). In other words, the bank-borrower relationship is costly since the exploitation of the banks' market power distorts investment efficiency.

With respect to evidence from other countries, Aintablian and Roberts (2000) employ return data from the Canadian capital market and report that, overall, bank loan announcements in Canada generate significantly positive abnormal returns whereas announcements of other private placements are not statistically significant to the stock price. Fery et al. (2003) and Koh (2001) separately employ Australian and New Zealand data and find that only bank loan announcements elicit a significantly positive abnormal return whereas non-bank loan announcements produce an insignificant response.

2.2.2 Challenges to Positive Market Response

Recently, a growing body of literature started to question the validity of the information content conveyed by bank lending revealing that the average bank loan no longer adds significant value to the borrowing firm (Billett, Flannery & Garfinkel, 2006; Fields et al.,

2006). These studies provide a different explanation for their findings on the direction of the bank loan announcement effect from different perspectives including event window (long-run performance) (Billett et al., 2006) and changes in financial markets (Fields et al., 2006).

2.2.2.1 Different Event Window

The short-run performance following a bank loan announcement has been extensively examined, but the long-term performance of borrowing firms following the announcement of a bank loan is relatively limited. Billett et al. (2006) initially re-examine the uniqueness of bank loans from a long-run perspective and find that over the three-year period following a loan announcement, borrowers from banks suffer significantly negative stock market returns similar to those experienced by seasoned equity offerings or public debt issuance. Therefore, Billett et al. (2006) conclude that loan announcements are misinterpreted by the market, not only in the magnitude of their effect on firm value but, in many cases, also the direction of the effect. Billett et al. (2006) also conclude that bank loans are not as "unique" as previously claimed. However, contrary to Billett et al. (2006), Le (2007) finds a long-term positive performance following bank loan announcements.

2.2.2.2 Changes in Financial Market

Numerous studies have shown that bank loan announcements produce positive abnormal returns for borrowing firms given no changes in the nature of banking environments and lending relationships. However, there are limited studies on the issue of whether many of the advantages associated with bank lending relationships still exist when there are changes in financial system since the 1990s in the U.S. Fields et al. (2006) use a sample of 1,111 loans for the period 1980-2003 and observe a significantly positive abnormal return for the entire 24-year sample. However, when the authors divide their sample into three sub-periods, 1980-1989, 1990-1999 and 2000-2003, they find significantly positive abnormal returns associated with bank loan announcements have not only diminished but disappeared over time. Fields et al. (2006) argue that the value of bank loan relationships has been reduced by structural changes in the financial market.

2.3 Direction of the Market Response to Bank Loan Announcements in Government-controlled Banking Systems

Though a substantial amount of literature has enhanced our understanding of the direction of the market response to bank loan announcements in non-government-controlled banking systems, it is unclear how the market response to bank loan annoucements differs when banks

are owned or controlled by the state. There are few studies on the issue of market response to bank loan announcements in government-controlled banking systems.

Despite the wave of privatization in 1980s and 1990s, La Porta et al. (2002) argue that government ownership of banks is still prevalent, in particular in countries with low levels of per capita income, backward financial systems, interventionist and inefficient governments, and poor protection of property rights. Altunbas, Evans and Molyneux (2001), Barth, Caprio and Levine (2001, 2003, 2004), Berger, Hasan and Klapper (2004) and Sapienza (2002, 2004) argue that banks with a high degree of government ownership, especially banks owned by the state, may not be as efficient as privatized banks in lending behaviour since state-owned banks often pursue political objectives rather than profit and value maximization in their lending policies, which generally result in unfavourable economic consequences. Berger, Clarke, Cull, Klapper and Udell (2005) and Iannotta, Nocera and Sironi (2007) find that a great extent of government ownership of banks is associated with high risk-taking, negative net present value projects, weak monitoring, and/or lack of aggressive collection procedures. These arguments indicate that the market may unfavourably react to loans issued by banks that are interfered with by government since government intervention inhibits banks from allocating their assets according to market criteria.

To the best of our knowledge, only four studies have investigated the issue of market response to bank loan announcements in government-controlled banking systems. Three studies use Chinese data and one study uses Taiwanese data. Cui and Zhao (2004) employ the event study method to investigate the market response to bank loan announcements in the Chinese financial market. Consistent with studies conducted in the U.S., Canadian, the U.K., Australia, New Zealand, Japan, Hong Kong and South Korea, Cui and Zhao (2004) find there is a significantly positive market reaction to bank loan announcements.

One of the limitations in Cui and Zhao's (2004) study is that only 53 bank loan announcements were in their study. The sample is relatively smaller and the observation period is relatively shorter than studies of other financial markets.

Chen and Tsai (2006) investigate the information content of syndicated loan announcements in Taiwan and find that syndicated loan announcements add significantly positive value to borrowing firms. However, the sample is relatively smaller than Cui and Zhao's (2004) study and studies of other financial market studies. Only 40 syndication bank loan announcements were included in Chen and Tsai's (2006) study.

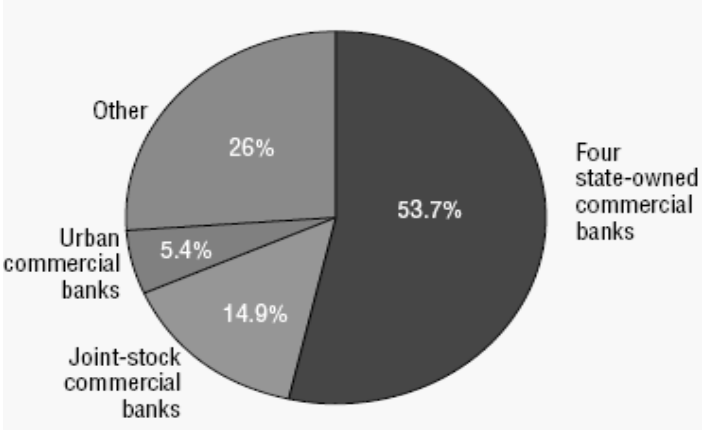
Shen et al. (2007) investigate the market response to bank loan announcements in the Chinese financial market and find a significantly negative reaction to bank loan announcements. However, the authors do not provide a reasonable explanation for their findings. In addition, unlike prior studies using two or three days as the event window, Shen et al. (2007) employ a longer (30 days) event window because they suggest that the Chinese financial market is not as efficient as others, which implies that the market response is relatively slow.

Bailey et al. (2010) find that the borrowers' stock value reacts negatively to a bank loan announcement in the Chinese financial markets. The authors reason that, in a government-controlled banking system such as China, the lending activities of state owned or controlled banks are often driven by political considerations such as avoiding unemployment and social instability rather than economic considerations. This implies that state owned or controlled banks may have to lend to some bailed-out poorly performing firms for political reasons. Comparing to the conventional notion that approval of a bank loan signals a high-quality, creditworthy borrower, approval of a bank loan in Chinese financial market signals a poor-performing firm which cannot obtain sufficient funds from operations and receives a bailout from the government-controlled banking system. Thus, the direction of the market response to bank loan announcements is hypothesized be negative in the Chinese financial market.

Researchers who investigated the market response to bank loan announcements paid great attention to China's banking system since it is a unique system in which to study bank loans in a government-controlled banking system.

Chinese banking industry is dominated by state owned or controlled banks. Big Four state-owned commercial banks account for 54% of China's total bank assets and liabilities (Fu, 2005). Figure 2.1 shows the Chinese banking industry in terms of assets at the end of 2004.

Figure 2.1 The Chinese banking industry in terms of assets (at the end of 2004)



Source: Fu (2005)

In addition, Big Four are the only financial institutions that have branches in almost all locations in China and, by 2001, they accounted for nearly two thirds of loans outstanding and deposits in China (Boyreau-Debray & Wei, 2004). Although China created a number of new joint-stock banks after the mid-1980s, most of these banks are still controlled by different state-owned entities. For example, the Bank of Communication is controlled by the Ministry of Finance on behalf of the state. La Porta et al. (2002) reported that the government owned 99.45% of the 10 largest commercial banks in China in 1995 (100% in 1970). This ownership level was one of the highest in their sample of 92 countries. The concentration ratio has fallen sharply since 1997 with the entrance of many non-state banks and financial intermediaries. However, at the end of 1997, Big Four bank concentration ratio was still near 91% (Demirgüç-Kunt & Levine, 2001). Minsheng Bank was the only private bank developed by the All China Federation of Industry and Commerce in 1996.

With state ownership, the banking sector in China is politically interfered with by the government. Since the government pursues its own political interests, state owned or controlled banks tend to pursue some political objectives, which are, to a great extent, different from those of the private commercial banks and generally at the expense of bank profitability (Allen, Qian & Qian, 2008; Boycko, Shleifer & Vishny, 1996; Tian, 2001b, 2004). When these political interests interfere with economic interests, the contracts of bank loans cannot function well (Tian, 2004). The banks have low efficiency in monitoring borrowers. Some inefficient borrowers, particularly SOEs are still supported by cheap bank credit to minimize unemployment and potential economic instability (Bailey et al., 2010; Brandt &Zhu, 2000; Dobson & Kashyap, 2006; Lardy, 1998). When inefficient borrowers are prevalent, bank loan announcements may generate negative market response (Bailey et al., 2010).

Past lending practices that were entirely based on political considerations have left Chinese banks with a large number of non-performing loans (NPLs) (Dobson & Kashyap, 2006; Tian, 2004). Comparing China and other major Asian economies in recent years, Allen et al. (2008) show that the amount of NPLs is the highest in China and the profitability of China's banking system is the lowest for the same group of countries. In order to resolve the NPLs, Chinese authorities decided to restructure state owned or controlled banks. In December 2003, the BOC and the CCB were selected as pilot banks for reform. The authorities announced the decision to recapitalize these two banks to strengthen their corporate governance structure and risk management, resolve NPLs, use reputable external auditors to assess the true financial position of the banks as well as enhance external oversight of the banks' operations.

Following the financial restructuring, the CCB listed in Hong Kong in 2005, and the BOC listed in Hong Kong and Shanghai in 2006. In early 2005, the authorities approved the restructuring of the ICBC, the largest commercial bank in China following the same restructuring process of BOC and the CCB. The ICBC listed in Hong Kong and Shanghai in 2006 (Podpiera, 2006). Following the public listing, the CCB, the BOC and the ICBC incorporated as joint stock companies, introduced new corporate governance structures, worked on changing risk management and internal organization, and brought in strategic investors (Podpiera, 2006).

Beyond state-owned banks, reforms have also extended to state-controlled banks. For example, in 2005 and early 2006, foreign ownership participated in a number of state-controlled banks such as Huaxia Bank, Bohai Bank, Guangdong Development Bank and Bank of Beijing (Podpiera, 2006). In addition, at the end of 2006, under a World Trade Organization agreement, the banking sector in China was opened to foreign banks. It is plausible that China's banking system has improved by the reforms since 2005. The market response to bank loan announcements may differ from the results found in Bailey et al.'s (2010), Cui and Zhao's (2004) and Shen et al.'s (2007) studies.

2.4 Bank Characteristics

In addition to the debate on the direction of market reactions to bank loan announcements, many studies have focused on factors that may influence the size of the market response to bank loan announcements. Previous studies suggest that the stock price response to bank loan announcements may be impacted by bank, borrower and loan characteristics.

2.4.1 Bank Characteristics in Non-government-controlled Banking Systems

Prior studies argue that banks have distinctive advantages over other lenders in monitoring borrowers in non-government-controlled banking systems (Diamond, 1984, 1991b; Hadlock & James, 2002; Leland & Pyle, 1977). However, the monitoring ability is different for individual banks because of their reputation, risk attitude, size and monitoring effort (Caprio, Laeven & Levine, 2007; Coleman, Esho & Sharpe, 2006; Heremans, 2007; Lee & Sharpe, 2006, 2009; Rime, 2003). The effect of the market response to bank loan announcements is affected by different banks' monitoring ability (Lee & Sharpe, 2006, 2009). Previous studies have used different measures to proxy for the monitoring ability of a bank since it is not directly observable. These measures include bank reputation/credit rating, bank size, bank monitoring effort and other bank monitoring ability characteristics.

2.4.1.1 Banks' Reputation/Credit Rating

Chemmanur and Fulghieri (1994) pay greater attention to reputation acquisition by banks instead of by borrowers. Unlike previous studies that assume an informational advantage of banks over other lenders, Chemmanur and Fulghieri's (1994) model suggests that the comparative advantage of banks with respect to bondholders is their ability to acquire a reputation for financial flexibility[10] when confronted with firms in financial distress. This financial flexibility enables banks to make the "right" renegotiation versus liquidation decisions when it is necessary to avoid inefficient liquidation (Berlin & Mester, 1992; Gorton & Kahn, 2000; Nakamura, 1989). In Chemmanur and Fulghieri's (1994) model, banks are exogenously endowed with different abilities to identify true firm values. Hence, the authors label banks with greater evaluative abilities as "more reputable" and conclude that loan renewals from such banks deliver more favourable information relative to that from less reputable ones.

Billett et al. (1995) and Lee and Sharpe (2006, 2009) provide empirical support to Chemmanur and Fulghieri's (1994) proposition by revealing that lenders with a higher rating are likely to be associated with significantly higher abnormal returns to borrowers' stock, even after controlling for borrower characteristics. This finding is confirmed by Thakor (1996) who shows that the positive impact of a lending announcement on the stock return of the borrower is greater when the lender faces more binding capital constraints. This is because lenders with capital constraints are inclined to ration credit more critically. Therefore, when such a lender grants loans, the equity market will react more positively.

In contrast to Chemmanur and Fulghieri's (1994) argument on banks' financial flexibility, Gilson and Warner (1998) provide a different opinion by investigating contractual debt restrictions, bank monitoring and flexibility in the bank versus public debt choice. In Gilson and Warner's (1998) sample of junk bonds[11] where the funds pay bank debts, the authors find that the terms of the junk bonds are less restrictive than the bank borrowing they replace. Gilson and Warner's (1998) cross-sectional analysis results show that firms grow most rapidly after the issue of junk bonds. These results indicate that junk debt appears to preserve financial flexibility by using fewer restrictions because junk bonds imply a higher probability of default. This is consistent with the argument that the greater constraints in bank loans can be value reducing. Renegotiating these restrictions can be costly if banks have monopoly

[10] Financial flexibility is defined as a capital structure's ability to support activities at low transaction and opportunity cost (Higgins, 1992)

[11] Junk bonds are defined as any straight public debt issue with a Moody's rating of Ba or below, or a Standard and Poor's rating of BB or below (Gilson & Warner, 1998).

power over borrowers (Houston & James, 1996; Rajan, 1992). Therefore, Gilson and Warner (1998) conclude that bank debt may be inferior to public debt since it provides less financial flexibility.

Boscaljon and Ho (2005) find that the excess returns for bank loan announcements before the Asian financial crisis are not significant, whereas the abnormal returns for bank loan announcements post the Asian financial crisis are significantly positive in the Asian financial markets (Hong Kong, Korea, Thailand and Taiwan). Boscaljon and Ho's (2005) result further support Billett et al.'s (1995) who argue that commercial banks with higher quality convey more information to the market.

In addition, Boscaljon and Ho (2005) find excess returns are largest in the healthier banking system of Hong Kong. Kang and Liu (2008) find that borrowing firms benefit when they borrow from banks with relatively lower risk in the Japanese market. These results are consistent with Billett et al.'s (1995) argument on the importance of lender quality.

2.4.1.2 Banks' Size

Unlike prior studies that employ bank reputation/credit rating to proxy banks' monitoring ability, Byers, Fraser and Shockley (1998) and Cook, Schellhorn and Spellman (2003) use lender size as a proxy for specialized expertise in the loan function. Both studies suggest that a larger bank is able to monitor more effectively since it has more specialized staff and/or better monitoring technology. Lee and Sharpe (2006, 2009) empirically support Byers et al.'s (1998) and Cook et al.'s (2003) argument by concluding that the borrowers' stock price reacts more favourably to announcements of loans from larger banks.

2.4.1.3 Banks' Monitoring Effort

Unlike previous studies that focus on the ex-post outputs (e.g. credit rating or bank size) of the lending process, Coleman et al. (2006) employ a novel, well-specified, ex-ante proxy for banks' monitoring ability – banks' monitoring effort based on the labour input into monitoring. Lee and Sharpe (2006, 2009) use Coleman et al.'s (2006) loan screening and monitoring proxy to investigate whether banks' monitoring effort affects abnormal bank loan announcement returns for borrowing firms. Lee and Sharpe (2006, 2009) find that banks with superior monitoring ability add greater value to the borrowing firms than less capable banks.

2.4.1.4 Other Banks' Monitoring Ability Characteristics

Boscaljon and Ho (2005) investigate the importance of the banking relationship by segregating the sample into local banks and international banks. The authors find that loans from local banks add more value than loans from international banks since local banks are

generally perceived as having advantages in monitoring the borrowers than international banks.

2.4.2 Bank Characteristics in Government-controlled Banking Systems

Since banks have low efficiency in monitoring borrowing firms in government-controlled banking systems (Berger et al., 2005; Iannotta et al., 2007), researchers pay more attention to the extent of intervention by the government in banks' lending behaviour when investigating how bank characteristics affect the magnitude of bank loan announcement effect in government-controlled banking systems.

Bailey et al. (2010) find that the negative effect of bank loan announcements is particularly significant when loans are granted by state owned or controlled banks especially Big Four state-owned banks or banks with lower ranking in China. The authors argue that political interference is stronger in state owned or controlled banks. In addition, lower ranking banks (local branches) suffer from greater pressure to issue loans to serve the political goals of local government than higher ranking banks (headquarters or main provincial branches). Gao et al. (2006) suggest that the market may also unfavourably react to bank loan announcements when the bank's location is in a province with a lower marketization level in credit allocation[12] in China.

2.5 Borrower Characteristics

In addition to bank characteristics, market reaction to corporate loans in prior studies appears to be associated with borrower characteristics.

2.5.1 Borrower Characteristics in Non-government-controlled Banking Systems

Studies that examine effects of borrower characteristics on the magnitude of bank loan announcements focus on borrower quality and borrower industry.

2.5.1.1 Borrowers' Quality

Prior studies argue that the information content of bank loan announcements is more for borrowers with low quality than those with high quality in non-government-controlled banking systems since borrowers with high quality would not gain greater benefit from bank screening and monitoring services (Chemmanur & Fulghieri, 1994; Diamond, 1991b; Slovin et al., 1992). However, there is no consensus criterion on borrower quality. Previous studies

[12] The marketization level in credit allocation means the degree of intervention in allocating credit by government.

have used different measures to proxy for borrower quality including the borrowers' information opaqueness, credit rating, financial status and their possibility of expropriation.

2.5.1.1.1 Borrowers' Information Opaqueness

Large capitalization firms usually draw more attention from analysts and investors and therefore more information is produced for these firms to reduce information asymmetry (Arbel, Carvell & Strebel, 1983; Atiase, 1985). Atiase (1985) asserts that the expected percentage change in share price in response to a public announcement is a decreasing function of firm size.

Slovin et al. (1992) find a significantly positive stock price reaction to both the initiation and renewal of bank loan announcements for small firms, but little evidence that bank credit arrangements convey new information for larger firms. The authors conclude that larger, more prestigious borrowers would not gain greater benefit from bank screening and monitoring services because large firms are more likely to be monitored than smaller and less visible borrowers. This conclusion is consistent with Cole, Wolken and Woodburn's (1996), Diamond's (1991b) and Fama's (1985) argument that larger firms already operate under the scrutiny of numerous external monitors, such as analysts, bond rating agencies and the financial press.

A number of studies employ different data from Canada (Aintablian & Roberts, 2000; André et al., 2001), and the U.K. (Armitage, 1995b), and generally find that loan announcements transmit more information for smaller firms relative to larger ones since the market has less information about the former. However, Koh (2001) finds that only large firms experience a significantly positive market response to loan announcements in the New Zealand financial market.

2.5.1.1.2 Borrowers' Credit Rating

Besides the borrowers' size, the borrowers' credit rating may also influence the loan announcement (James, 1987). For example, Diamond (1991b) shows that firms with a high credit rating (as evidenced by an established reputation) use directly placed debt (e.g. debenture and commercial paper), whereas medium/low-rated firms use bank financing. The reason is that the bank's monitoring is of no value when the credit rating of the firm is high since the associated moral hazard in such firms is valueless. However, for firms with a lower credit rating, the monitoring service of banks can provide screening functions and incentives if the moral hazard is pervasive. Thus, Diamond (1991b) suggests that the choice of borrowing from banks with monitoring implies that the borrower is building up his or her

credit history gradually in order to acquire reputation through time. This action is favourable news to the market in an assessment of a firm's future prospects.

Rajan (1992) shows that both the benefits and costs of choosing an ex-post informed lender such as a bank are relatively insignificant for high quality firms in a competitive capital market. Therefore, the author concludes that firms with a high credit rating are not sensitive to the choice between bank credit and arm's length public debt. This implies that the decisions to borrow from either private or public debt among high quality companies may lead to a limited stock price reaction from the market. The contrary scenario applies to lower quality firms, with a significant effect of ex-post monitoring.

Denis and Mihov (2003) empirically support Diamond's (1991b) and Rajan's (1992) argument by showing that firms with a high credit quality are more apt to borrow from public sources. Conversely, firms with no established credit ranking are more likely to choose bank debt. Using the firm's existing mix of debt claims as the control variables, Denis and Mihov (2003) find that highest ratings are public debt borrowers, followed by bank debt borrowers and the quality of credit rating is lowest for private debt borrowers. On the other hand, Aintablian and Roberts (2000) find that borrower's credit rating has a negative effect on the magnitude of share price response to loan announcements in the Canadian financial market.

2.5.1.1.3 Borrowers' Financial Status

Chemmanur and Fulghieri (1994) argue that a valued reputation enhances a private market lender's ability to make credible commitments to act in good faith when a borrower experiences financial problems. In addition, the authors suggest that bank loans would be renegotiated more often than publicly traded debt in times of financial distress since banks spend more resources to evaluate firms that encounter financial problems than holders with other kinds of debt. The authors conclude that firms confronting a greater likelihood of financial distress prefer to borrow from banks despite higher interest rates, whereas firms characterized by a low level of financial distress borrow from the public (non-bank sources) at a lower cost. Bolton and Freixas (2000) argue that firms choose bank debt mainly because of banks' financial flexibility in helping them through times of financial distress. Hence, riskier firms prefer bank loans rather than publicly traded debt in equilibrium.

Brown et al. (1993) find that firms re-value upward when private lenders offer equity and re-value downward when public debt-holders offer equity. This finding verifies the earlier argument that private lenders' willingness to restructure transmits a signal of the firm's bright

prospects since they are better informed than public lenders with regard to a firm's continuation value.

Contrary to Brown et al.'s (1993) argument that there is no hold-out problem among public debt-holders, James (1996) argues that the hold-out problem should be more serious for firms that have more publicly traded debt since such debt is prone to be more widely held, compared with private debt such as bank debt. Based on this reasoning, James (1996) claims that bank and other private lender participation in the restructuring process, such as bank concessions, can mitigate adverse selection problems. James (1996) therefore suggests that private lenders play an important role in facilitating out-of-court debt restructuring for firms in financial distress. The author concludes that it is more likely that a bank suffers from impairment when financial distress occurs in the borrowing firm if it holds a higher stake of the total debt of that firm. Thus, the bank has a stronger motivation to take part in restructuring. This argument is consistent with Chemmanur and Fulghieri's (1994) and Bolton and Freixas' (2000) assumption that riskier firms with a higher possibility in financial distress prefer bank debt.

James (1996) argues that it is more likely for bank debt forgiveness via exchange offers with the composition of public debt when the debt structure of the distressed companies involves banks loans. In contrast to James' (1996) argument, Franks and Sussman (2005) show that when companies are distressed, banks almost never forgive or scale down principal payments even though forcing bankruptcy may result in larger losses. The authors regard this contradiction as being due to the differences in bankruptcy laws between the U.K. and the U.S. Franks and Sussman (2005) argue that although banks make very limited concessions, they cannot be characterised as "lazy" monitors. Because nearly all of the firms' assets are pledged as collateral to the bank in the U.K., banks tend to liquidate collateral at a price close to the face value of the secured claim in timing bankruptcy decisions.

2.5.1.1.4 Borrowers' Possibility of Expropriation Problem

Recently, several studies propose that the expropriation problems of borrowers may impact on the market response to corporate loan announcements (Bailey et al., 2010; Deng & Wang, 2006; Khanna, 2000; Wei & Wan, 2007). These studies argue that insiders can expropriate outsiders through diverting valuable resources out of the firms. Johnson et al. (2000) use the term "tunnelling" to describe this diversion or transfer. The authors further suggest that insiders can take a variety of tunnelling channels including outright theft or fraud; paying excessive executive compensation to themselves when they hold positions in the company; paying special dividends to themselves; exploiting business relationships between the firm

and other entities wholly under their control through transfer pricing, such as selling assets, goods, or services to themselves or other companies; through self-dealing transactions at values below the prevailing market prices; and subsidising personal loans or guaranteeing other affiliated entities using the firm's assets as collateral.

Tunnelling can also take more subtle legal forms such as dilution of minority shareholders by issuing additional shares at a preferential price or a merger transaction between affiliated companies to siphon resources from the target or bidder. These tunnelling channels do not break any law, but exert the same influence as theft on minority shareholders and creditors (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000a). Johnson, Boone, Breach and Friedman (2000) also describe a means of expropriation by illustrating with alleged incidents of stealing in the Asian financial crisis. The authors propose that transferring assets out of a company with outside shareholders to repay personal debt, raising funds to prop up another affiliated firm with different shareholders, or even diverting cash into personal accounts abroad are common in emerging markets where management is also the controlling shareholders and, hence, such transfers are more frequent.

Since insiders in a listed company may misuse funds from corporate loans to pursue their private benefit, a firm with a higher possibility of expropriation obtaining funds from a corporate loan may convey a negative signal.

However, there are limited empirical studies directly investigating the relationship between the borrowers' possibility of expropriation and the magnitude of the bank loan announcement effect in non-government-controlled banking systems. Mathieu et al. (2006) provide indirect evidence by examining the impact of one of the expropriation-reduction mechanisms – a firm's leadership structure on its ability to generate value from loans. Mathieu et al. (2006) reveal that there is a significantly positive market response for firms organised in a low-expropriation-cost separating CEO-Chair structure, but not for firms who are organised in a high-expropriation-cost combined CEO-Chair structure. This finding implies that the separation of CEO and Chair of board responsibilities between two people is more effective with respect to the use of loans. This conclusion is further confirmed by the fact that the observed market response for firms with a separate CEO-Chair structure is also greater when controlling the presence of other monitoring mechanisms (the presence of outside directors on the board and institutional shareholders) and the efficiency of the board (the size of the board). In addition, the authors show that the positive market response is eminent for firms with no institutional shareholders, where bank debt ownership and institution equity ownership have similar effect on alleviating expropriation problems.

2.5.1.2 Borrowers' Industry

Brumm (1996) suggests that the exchange and industry to which a borrowing firm belongs are import characteristics that can affect the magnitude of the bank loan announcement effect.

2.5.2 Borrower Characteristics in Government-controlled Banking Systems

Studies that investigate how borrower characteristics affect the magnitude of the bank loan announcement effect in government-controlled banking systems also focus on borrower quality and borrower industry.

2.5.2.1 Borrowers' Quality

The discussions on borrowers' quality in government-controlled banking systems also include borrowers' information opaqueness, their financial status and their possibility of expropriation.

2.5.2.1.1 Borrowers' Information Opaqueness

Cui and Zhao (2004) find that the significantly positive bank loan announcement effect is particularly strong for small borrowing firms in the Chinese financial market. Chen and Tsai (2006) find that the positive effect of syndicated loan announcements is particularly significant for small borrowing firms in the Taiwanese financial market. Bailey et al. (2010) show that the negative effect of bank loan announcements is particularly significant for smaller borrowing firms in the Chinese financial market. These results are consistent with Aintablian and Roberts' (2000), Diamond's (1991b), Fama's (1985) and Slovin et al.'s (1992) argument that large firms typically have less information opaqueness and hence a smaller information content in bank loan announcements.

2.5.2.1.2 Borrowers' Financial Status

Chen and Tsai (2006) empirically support Bolton and Freixas' (2000), Chemmanur and Fulghieri's (1994) and James' (1996) findings by revealing in the Taiwanese financial market[13] that the positive effect of syndicated loan announcements is greater for borrowing firms with a higher possibility of financial distress.

Bailey et al. (2010) find that there is no significant response for firms in financial distress. The authors argue that firms in financial distress may have been propped up by the Chinese government and hence there is little informational value in additional bank loan announcements.

[13] Chen and Tsai (2006) use fixed assets to total assets and debt ratio proxy for the possibility of financial distress.

2.5.2.1.3 Borrowers' Possibility of Expropriation Problem

Shen et al. (2007) find that abnormal returns are higher for borrowing firms with higher free cash flow. This result implies that bank debt can reduce the free cash flow used by managers for their private benefit and hence mitigate the agency cost.

Bailey et al. (2010) investigate the impact of the borrowers' expropriation problem on the magnitude of the bank loan announcement effect in the Chinese financial market by employing some novel variables to proxy for the borrowers' expropriation problem. The authors argue that the banking system is directly involved in tunnelling by internally controlling shareholders as the concentration of ownership. Thus, Bailey et al. (2010) expect that the negative effect of bank loan announcements is particularly significant for firms that suffer from frequent expropriation/tunnelling. After segregating the bank loan announcement effect based on the proxies for the expropriation problem, the authors find that the negative effect of a bank loan announcement is particularly significant for firms with a higher possibility of expropriation. This finding supports their hypothesis that the banking system has been involved in tunnelling by internal controlling shareholders.

In addition, both Bailey et al. (2010) and Shen et al. (2007) show that the negative effect of bank loan announcements is particularly significant for borrowing firms that are controlled by the state. Both studies argue that borrowing firms with relatively high state ownership may be subject to non-maximizing goals.

Bailey et al. (2010) and Shen et al. (2007) shed light on the relationship between borrowers' expropriation problem and the market response to bank loan announcements in the Chinese financial market. However, both studies employ some specific actions of expropriation or the firm performance as a proxy for the likelihood of expropriation and do not discuss the root of expropriation problems and relevant expropriation-reduction mechanisms.

The Chinese financial market is seen as potentially prone to substantial expropriation-related problems between insiders and outside investors for the following reasons.

First, the ownership in Chinese publicly listed firms tends to be highly concentrated rather than diversified (CCGR, 2003; Fan et al., 2005, 2007; Lu & Yao, 2006). CCGR (2003) reported that the largest shareholder of a publicly listed company owns, on average, 44.26% of the company's shares. In addition, in over 40% of cases the largest shareholders have more than 50% of their company's shares and firms with the top five shareholders owning more than 50% of their company's shares include 74.4% of all the companies' shares.

Second, the ongoing corporatisation and listing of many large SOEs reveal listed firms in China have an interesting and unique ownership mix. The majority of Chinese listed firms have been transformed from state-owned, collective, and private enterprises through restructuring (Leung, Liu, Shen, Taback & Wang, 2002; Wang, 2005; Xu & Wang, 1997, 1999). In the restructuring process, the state and legal persons essentially transformed part of the assets into non-tradable shares of the listed companies (Lau, Qian & Roland, 2000; Leung et al., 2002; Xu & Wang, 1997, 1999). The original enterprise became a holding company that coexists with the listed company through a parallel or pyramid structure (CCGR, 2003; Fan et al., 2007; Xu & Wang, 1997, 1999).

The ownership of most Chinese listed firms is highly concentrated with successive layers of holding companies through parallel or pyramid structures, which results in divergence between the voting rights and the cash-flow rights of controlling shareholders (Fan et al., 2005, 2007; Lu & Yao, 2006). As the divergence between cash-flow rights and control (voting) rights increases, controlling shareholders have incentives (small cash-flow rights) and the ability (sufficient voting rights) to abuse their power and expropriate the firm's wealth by seeking their private benefit at the expense of minority shareholders and creditors (Barca & Becht, 2001; Claessens, Djankov & Lang, 2000; Faccio & Lang, 2002; La Porta et al., 1999).

A number of researchers have provided empirical evidence for the incidence of expropriation of controlling shareholders in China from different perspectives. Controlling shareholders are likely to expropriate minority shareholders and creditors through direct fund appropriation (Bailey et al., 2010; Deng & Wang, 2006; Wei & Wan, 2007), related-party transaction (Cheung, Rau & Stouraitis, 2006; Jian & Wong, 2003; Yu, 2004), earning management (Ding et al., 2007; Jian & Wong, 2003; Liu & Lu, 2003), dividend policy (Chen et al., 2008; Yu, 2004) and direct asset appropriation (Gao et al., 2006; Gao & Kling, 2008; Tian, 2004; Wei & Wan, 2007). The minority of outside tradable shareholders and creditors tend to become free riders and play an extremely weak role in corporate governance. This promotes insider controlling behaviours (Ho, 2003). Furthermore, Hess, Gunaskarage and Hovey (2008) and Tian (2001a) find that ownership concentration has a negative impact on the firm's performance. This finding implies that the expropriation of minority shareholders by large shareholders exists in China.

The expropriation problem is likely to be more serious in firms in which the controlling shareholder is the state or state-related institutions. This is because the state may pursue some multiple and often conflicting social objectives such as social welfare and employment protection. These objectives are often different from profit maximization (Bai, Liu, Lu, Song

& Zhang, 2004; Chang & Wong, 2004; Cheung, Jing, Rau & Stouraitis, 2005; Wei, Xie & Zhang, 2005). In addition, some state agencies may be beneficial for expropriated state companies (Goriaev & Sonin, 2004).

Furthermore, expropriation-reduction mechanisms in Chinese listed firms are in form rather than in substance. For example, over 70% of the directors are appointed by the state and legal person shareholders (Cheung et al., 2005, Ho, 2003), and over half are appointed by the controlling shareholder in proportion to their shareholding (Ho, 2003). There are very few representatives of individual or outside shareholders elected as directors at the shareholders' assembly (Kato & Long, 2006; Wang & Deng, 2006; Xu & Wang, 1997, 1999). After restructuring, board members and managers are almost exclusively insiders (Tian & Estrin, 2008; Xu & Wang, 1997, 1999). The expropriation problem by insiders may not be alleviated by existing ownership structure arrangements and corporate governance mechanisms.

2.5.2.2 Borrowers' Industry

There is limited evidence on how the borrowers' industry affects the market reaction to bank loan announcements in government-controlled banking systems. Bailey et al.'s (2010) study shows the negative effect is stronger for firms that belong to heavy industry, suggesting that the stock market does not like firms in "rust belt" trouble in the Chinese financial market.

2.6 Loan Characteristics

Apart from the investigation of bank and borrower characteristics, a number of researchers have shed light on loan characteristics i.e., whether the features of loans influence the borrowers' share price response to bank loan announcements.

2.6.1 Loan Characteristics in Non-government-controlled Banking Systems

Studies that examine effects of loan characteristics on the magnitude of bank loan announcements in non-government-controlled banking systems focus on loan characteristics in loan contracts that can be complementary monitoring mechanisms by banks. These characteristics include the types of loan, loan size, loan maturity, covenants/collateral and loan purposes.

2.6.1.1 Types of Loans

2.6.1.1.1 Types of Loans—Initiations versus Renewals

Lummer and McConnell (1989) investigate whether banks add value by accessing additional information over other capital market-participants at the outset of a loan or whether this uniqueness emerges as a result of the ongoing banking relationship. The authors document an

insignificant market response to bank loan announcements in the case of initiation. In addition, Lummer and McConnell (1989) further find that revised credit agreements are on more favourable terms than term loans, which consist of favourable terms or unfavourable terms[14]. Based on their results, Lummer and McConnell (1989) infer that bank loan announcements are competitively informative only after they have established a lending relationship with firms that enabled them to acquire private information, not at the initial credit appraisal stage. Lummer and McConnell's (1989) findings strongly support Fama's (1985) renewal hypothesis. Brumm (1996), Fields et al. (2006), Le (2007), Lee and Sharpe (2006, 2009) and Preece and Mullineaux (1994) provide further confirmatory evidence for this continuing deposit relationship theory.

Contrary to Lummer and McConnell (1989) and Preece and Mullineaux (1994), some studies (Best & Zhang, 1993; Billett et al., 1995; Brumm, 1996; Slovin et al., 1992) reject the hypothesis that announcement effects differ between new and revised loan agreements since there are positive stock price response reactions for both types of announcement. However, their arguments are based on certain conditions. Slovin et al. (1992) clarify that both loan initiations and renewals generate positive abnormal returns, but only for small firms, not large firms. Best and Zhang (1993), Billett et al. (1995) and Brumm (1996) also report significantly positive abnormal returns for both new and renewed loans. However, neither study have found a statistically significant difference in the reactions to initiations versus renewals once they controlled for differences in other borrower and lender characteristics, such as the precision of analysts' forecasts and the credit quality of lenders.

James and Smith (2000) carry out a comprehensive review of the past and recent research on the special nature of bank loan financing. The authors argue that the findings in Best and Zhang (1993), Billett et al. (1995) and Slovin et al. (1992) are inconsistent with Lummer and McConnell's (1989) findings because the differentiation between initiations and renewals in Lummer and McConnell (1989) is ambiguous. In addition, many borrowers already have an ongoing relationship through an existing loan agreement or unused loan contract with the bank despite new loans in the initiations category.

In terms of evidence from other non-government-controlled banking systems except the U.S., Aintablian and Roberts (2000), André et al. (2001) and Mathieu et al. (2006) find that both

[14] Lummer and McConnell (1989) divide loan announcements into new loan announcements, favourable renewals and unfavourable renewals. The authors claimed that there are four criteria that determine whether loan renewals are favourable or unfavourable including: (1) time until maturity, (2) relative interest rate, (3) the dollar amount, and (4) protective debt covenants. Favourable loan term revisions include a lengthening of the maturity, a reduction in the interest rate of restrictive covenants, and an increase in denomination.

new loans and renewals produce significantly positive responses although the average abnormal return for new loans is less significant than renewals in the Canadian financial market. In addition, in the renewal category, Aintablian and Roberts (2000) and André et al. (2001) find a significantly positive response to favourable renewals but a non-significantly negative abnormal return to unfavourable renewals. However, André et al. (2001) did not identify unfavourable renewals from revised loans. Boscaljon and Ho (2005) also find that the average excess return for both loan initiations and renewals is significantly positive in some Asian markets. Boscaljon and Ho (2005) also find significantly positive abnormal returns associated with favourable and mixed renewals but significantly negative excess return to unfavourable ones.

Armitage's (1995b) study shows no significant response to announcements of new loans for U.K. borrowing firms. With regard to loan revisions, Armitage (1995b) finds that there is a small positive response to increases in the existing facilities and announcements of positive news but there is no significant response to negative and mixed news.

Fery et al. (2003) find that only loan announcements published in the financial press elicit significantly positive market response, but loan announcements that are not published lead to an insignificant response in the Australian financial market. This finding is consistent with Lummer and McConnell's (1989) argument that both borrowers and lenders are more likely to announce favourably revised loans rather than unfavourably revised loans. Therefore, studies that use only publicly available announcements may suffer from "loan reporting bias".

2.6.1.1.2 Types of Loans—Syndicate Loans versus Non-syndicate Loans

Preece and Mullineaux (1996) investigate two additional aspects of bank loans: contractual flexibility and syndicate size. The authors postulate that the capacity to renegotiate a bank loan relatively inexpensively in corporate restructuring should complement monitoring as a source of value to borrowers. Consequently, as the number of lenders increased in a syndicate, contracting costs rise and the capacity to renegotiate declines. This is because, as the syndicate size increases, the contractual flexibility inherent in debt contracts (compared with loans by a single lender) declines due to potential hold-out problems in the process of renegotiation (Gorton & Kahn, 2000). In addition, as Petersen and Rajan (1994) point out, the concentration of borrowing is regarded as good news. Preece and Mullineaux (1996) therefore hypothesise that the market reaction to loan announcements is a declining function of the number of lending banks and find support in their testing. Brumm (1996) and Le (2007) confirms Preece and Mullineaux's (1996) findings where the market views non-syndicated loans favourably.

However, Rajan (1992) argues that the information acquired by a single bank can lead to an "information monopoly" or hold-up problem, which makes it costly for the borrower to switch lenders. Houston and James (1996) test Rajan's (1992) model and find that firms borrowing from multiple banks undertake more investment opportunities than firms that rely on a single bank for their financing needs because, in the latter case, these firms do not have incentives to invest in new projects given that the bank uses its monopoly information to capture most of the profits. Therefore, multiple bank lending or syndicated loans, similar to public debt, could enhance contractual flexibility and limit hold-up problems, which showed a statistically positive relationship between the borrowers' abnormal returns and syndicate size. This finding supports Rajan's (1992) claim. In addition, Fields et al. (2006) and Lee and Sharpe (2006, 2009) suggest that the syndicate size has no influence on the abnormal returns of bank loan announcements.

With respect to evidence from other financial markets except the U.S., Aintablian and Roberts (2000), André et al. (2001) and Mathieu et al. (2006) find that syndicated loans in Canada result in lower excess returns than non-syndicated loans. Fery et al. (2003) also find that a single lender provides a positive abnormal excess return for published agreements, but multiple lenders for published announcements and all other non-published announcements produce insignificant effects in the Australian financial market. However, Koh's (2001) study in the New Zealand financial market shows that syndicated loans show significantly positive abnormal returns but the abnormal returns for non-syndicated loans are insignificant.

2.6.1.2 Loan Size

Based on previous research, there are at least four factors to consider in the private/public debt choice. These are: (1) flotation costs such as issue costs; (2) leverage-related costs such as contracting costs, and bankruptcy costs and agency costs of debt; (3) liquidity of debt in secondary markets; and (4) resolution of information asymmetry (Easterwood & Kadapakkam, 1991). By examining the effect of transaction costs and leverage-related costs on the choice of debt, Easterwood and Kadapakkam (1991) argue that it is more likely for firms with small debts to raise funds in private markets. The reason is that flotation costs are relatively larger and yield reduction relatively smaller when firms issue public offerings. By comparison, larger firms, with their larger issue sizes, save on transactions costs (the large "fixed" cost portion being spread over a larger issue size), and tend to lean on public debt more than medium-sized firms. This results in a mismatch of debt size in light of private or public debt which transmits adverse information to the capital market. Easterwood and Kadapakkam

(1991) suggest that the monitoring, regulation or information asymmetry may be important to a firm's debt placement decision, but they do not directly test these propositions.

Krishnaswami et al. (1999) find evidence consistent with the hypothesis that smaller debt size relies more on private debt than public debt. Their findings also indicate that firms with larger issues exploit the economy of scale in the flotation costs of public loans. Lummer and McConnell's (1989) study shows no significant difference in the excess returns between large and small size announced loans. However, Lummer and McConnell's (1989) result reveals that the borrowing firms' announcement returns are positively associated with the size of the loans. Kang and Liu (2008) show that, in the Japanese financial market, the positive effect of bank loan announcements is more pronounced the larger the loan size. However, Koh (2001) finds that, in the New Zealand financial market, both large and small loans exhibit an insignificant response.

2.6.1.3 Loan Maturity

Loan maturity is another common loan characteristic in a loan contract that has an impact on the expected magnitude of the announcement abnormal return. Many researchers (Diamond, 1991a, 1993; Flannery, 1986; Kale & Noe, 1990; Robbins & Schatzberg, 1986) propose that a more positive reaction to loan debt announcements occurs in response to a shorter maturity since longer-maturity loans are subject to greater interest-rate risk exposure over the loan period and may have a higher risk premium of principal repayment default. Current issuance of short-term debt reveals that the firm will take the uncertainty due to the floating rate in the refinancing process (Flannery, 1986), On the other hand, current issuance of long bonds may, to a large degree, lead to elimination or postponement of the uncertainty resulting from the fixed financing rate.

Considering the effect of asymmetric information on the debt maturity decision, Diamond (1991a, 1993) and Flannery (1986) conclude that firms may prefer short-maturity debt even though liquidation or refinancing are costly because those costs may serve as a credible signal of favourable insider information about the firm's superior prospect, which should result in a positive share price response to the issuance of new debt. Kale and Noe (1990) and Robbins and Schatzberg (1986) confirm this by finding that the better quality firms tend to adopt short-term debt to transmit their optimistic assessment of loan quality to an asymmetrically informed market.

Another justification for the effect of loan maturity is that bank loans have considerably shorter maturity compared with private or public debt[15]. Because of the short term nature of bank loans (Aintablian & Roberts, 2000; Fama, 1985; James, 1987), firms are required to roll them over frequently. It is the repeated refinancing transactions with the borrowers that make banks continuously re-evaluate the borrowing companies, thereby strengthening the banks' unique ability to assess inside information and monitor the loans effectively (James, 1987; James & Smith, 2000; Rajan, 1992;).

Contrary to Diamond's (1991a, 1993), Flannery's (1986), and Kale and Noe's (1990) argument, Brumm (1996) finds that the market response to loans with a maturity of one year or less is insignificant whereas loans with maturities longer than one year show significantly positive excess returns.

2.6.1.4 Covenant and Collateral

Rajan and Winton (1995) focus on two other features of loan contracts –covenants and collateral – and their effect on the lenders' ex post monitoring incentives.

2.6.1.4.1 Covenant

Rajan and Winton (1995) define loan covenants as "*clauses in a loan contract that require the borrower to take or refrain from various actions*" (Rajan & Winton, 1995, p. 1113). The authors argue that some shareholders, including investors, trade creditors, employees and the government, are able to free ride on the bank's monitoring mechanism if the banking relationship already exists. This monitoring externality discouraged banks from seeking and making use of extra information. Thus, if bank monitoring is socially beneficial, then long-term debt with covenants may be preferred to covenant-free short-term debt as long as the covenants relied on information that is not available to the public for free use[16]. This is because the effective use of covenants forces the lender to do some monitoring. The authors conclude that the presence of debt covenants increases the bank's incentive to monitor by increasing the sensitivity of a lender's return to information or by decreasing the bank's payoff if it does not monitor.

Park (2000) also argues that more restrictive covenants can serve as a commitment mechanism for firms by maximizing the lenders' incentives to monitor. Such monitoring activity reduces the borrower's information asymmetry since a well-structured covenant

[15] James (1987) documented that the longest bank loan is 12 years, less than the median maturity of privately or publicly placed debt.

[16] Although covenants restricted the ability of the bank to act, the bank would not be able to act at all unless it acquired adequate information to show that the covenants have been violated (Rajan & Winton, 1995).

enables lenders to detect a borrower's opportunistic behaviour and to punish it either by liquidation or through renegotiation.

Several researchers argue that covenants on private debt (particularly for bank loans) are more restrictive than those on public debt to maintain the financial ratios at a certain minimum level (James & Smith, 2000; Park, 2000; Rajan & Winton, 1995). This argument may have partial explanatory power from previous findings, where the market response to bank loan announcements is positive; however, the response to public debt issues is not significantly positive or negative. More recently, Demiroglu and James (2007) find that there is a larger stock price reaction to the announcement of bank loans associated with restrictive covenants. This finding supports the argument that restrictive covenants convey favourable private information.

Franks and Sussman (2005) find that U.K. banks typically respond to distress with an attempt to rescue the firm rather than automatically liquidate it. This implies that bank lenders are tougher than other creditors (such as trade creditors and bondholders) in their bargaining power with distressed firms. This evidence is consistent with arguments in U.S. studies (James & Smith, 2000, Park, 2000; Rajan & Winton, 1995). That is, compared with other suppliers, banks impose more restrictive covenants in the event of borrowers' financial distress.

2.6.1.4.2 Collateral

Collateral is another loan characteristic that has been given considerable attention (Berger & Udell, 1990; Bester, 1985; Rajan & Winton, 1995). Rajan and Winton (1995) propose the importance of collateral in a model with moral hazard, monitoring and pre-contract asymmetric information. In Rajan and Winton's (1995) model, a bank's ability to claim additional collateral if the firms are distressed may improve the bank's ex ante incentives to monitor. Moreover, Rajan and Winton (1995) argue that the existence of collateral provides a degree of protection not only to the lenders, but also to other outside creditors since, by demanding additional collateral, lenders would indirectly "sound the alarm bell" and induce efficient liquidation that would not otherwise have taken place.

James and Smith (2000) further conjecture that collateralised bank debt is typically short term and improves a bank's ability to monitor informational-intensive loans. Thus, by securing a loan, banks ensure their senior position, which effectively increases their return in the debt payoff structure. This, in turn, increases their incentive to monitor. Therefore, the authors

argue, bank loans are more often, typically secured with collateral relative to other private placements.

However, Carey et al.'s (1998) finding show that commercial finance companies specialising in asset-based lending (collateralized lending) tend to monitor the collateral more closely than do commercial banks.

2.6.1.5 Loan Purpose

James (1987) argues that loan purpose is also a common loan characteristic that theoretically has an impact on the expected magnitude of the bank loan announcement effect. However, James (1987) empirically finds no significant difference in the share price reaction to bank loan announcements based on loan purpose. Contrary to James (1987), both James and Wier (1988) and Slovin et al. (1992) report significantly positive abnormal returns for loans for general corporate purpose. Lee and Sharpe (2006, 2009) and Slovin et al. (1992) find that loans used to refinance existing debt add significant value to borrowers. The inconsistent results could be due to the different criteria in classifying loan purpose. For example, James (1987) and James and Wier (1988) classify refinancing debt and repayment of bank loans as two separate categories while Slovin et al. (1992) combine the two categories into one group as repayment debt.

With respect to evidence from other financial markets, Koh (2001) reports significant abnormal returns for loans for stand-alone projects but a non-significant response for loans for general corporate, fund acquisition and debt refinancing purposes in the New Zealand financial market. In some Asian markets, Boscaljon and Ho (2005) report significant abnormal returns for loans for capital expenditure, for no specific purpose, or for repayment of bank debt, but a non-significant response for loans for general corporate and restructuring purposes.

2.6.2 Loan Characteristics in Government-controlled Banking Systems

Since the bank monitoring function is not efficient in government-controlled banking systems, loan characteristics in loan contracts that can act as complementary monitoring functions by banks draw little attention from researchers. The discussions related to the effects of loan characteristics on the magnitude of bank loan announcements are restricted to some features including types of loan, loan maturity and loan purpose.

Cui and Zhao (2004) find that both new loans and loan renewals can elicit a significantly positive reaction, but the positive effect of bank loan announcements is pronounced for loan renewals in the Chinese financial market. This result is similar to that of Aintablian and

Roberts (2000), Billett et al. (1995), Boscaljon and Ho (2005) and Slovin et al. (1992), but fails to confirm Armitage's (1995b), Fama's (1985) and Lummer and McConnell's (1989) argument that only renewal loans can generate a significantly positive response.

Chen and Tsai (2006) find that there is a decreasing function between the effect of syndicated loan announcements and the number of lenders in the Taiwanese financial market. This finding supports Aintablian and Roberts' (2000), Fery et al.'s (2003) Gorton and Kahn's (2000) and Preece and Mullineaux's (1996) findings.

In terms of loan maturity, Bailey et al. (2010) discover that in the Chinese financial market the negative effect of a bank loan announcement is particularly significant for loans with shorter maturity. This finding is inconsistent with Diamond's (1991a, 1993), Fama's (1985) and Flannery's (1986) argument that the market reacts favourably to shorter-term loans. Bailey et al. (2010) explains that many Chinese listed firms use short-term loans to fund long-term assets.

For loan purpose, Chen and Tsai (2006) argue there are significant abnormal returns for loans for the purposes of capital expenditure but a non-significant response for loans for refinancing debt, purchasing facilities, stand-alone projects and other purposes in the Taiwanese financial market. Bailey et al. (2010) find that the negative effect of a bank loan announcement is particularly significant for loans used to repay old loans in the Chinese financial market. These findings contrast with Boscaljon and Ho's (2005), Lee and Sharpe's (2006, 2009) and Slovin et al.'s (1992) finding that the stock market reacts favourably to loans used to refinance existing debt.

2.7 Chapter Summary

In summary, the literature in general concludes that: (1) banks have the ability to access inside information about borrowing firms that is not available to other investors; (2) the market response to bank loan announcements, conducted primarily in non-government-controlled banking systems with little political influence ,such as the U.S., Canadian, the U.K., Australia, New Zealand, Japan, Hong Kong and South Korea, are generally consistent, that is, borrowing firms enjoy positive excess returns to their securities around the announcement date of their bank loans; and (3) the magnitude of the bank loan announcement effect varies according to different bank, borrower and loan characteristics.

However, some studies question the robustness of the information content conveyed by bank loan announcements in a government-controlled banking system. For example, Bailey et al.

(2010) and Shen et al. (2007) find that bank loan announcements display negative abnormal returns in one of the government-controlled banking systems, the Chinese financial market. Bailey et al. (2010) explain that the dominant (albeit declining) share of state owned or controlled Chinese banks in total lending and continuing political intervention result in too many negative net present value policy loans to support less-profitable firms to avoid unemployment and social instability.

Except for some typical borrower characteristics, some researchers (Bailey et al., 2010; Mathieu et al., 2006; Shen et al., 2007) propose that a series of new borrower characteristics, including borrowers' expropriation problem and relevant expropriation-reduction mechanisms, may affect the magnitude of the bank loan announcement effect.

The empirical findings of previous studies on stock price responses (abnormal returns) to bank loan announcements are summarised in Appendix A. Appendix B summarises the discussion of prior research results on bank loan announcement effects.

Chapter 3
Hypothesis Development and Research Methodology

3.1 Introduction

This chapter describes the hypothesis development and the research methodology. Section 3.2 presents the testable hypotheses. Section 3.3 describes the data collection procedure and the sample selection criteria employed. Section 3.4 describes the statistical methodology employed.

3.2 Hypothesis Development

As discussed previously, bank loan announcements are considered positive signals that yield positive abnormal returns for the borrowers' stock (Aintablian & Roberts, 2000; Boscaljon & Ho, 2005; Chen & Tsai, 2006; Fields et al., 2006; James, 1987). However, bank loan announcements may transmit negative information if the banks have to lend to weak firms to avert unemployment and social instability in a government-controlled banking system such as in China (Bailey et al., 2010; Shen et al., 2007). The following hypothesis is proposed:

> H_1: There is a negative relationship between bank loan announcements and abnormal returns.

The size of bank loan announcement effect may differ, depending on the bank, borrower and loan characteristics (Aintablian & Roberts, 2000; Bailey et al., 2010; Lummer & McConnell, 1989; Slovin et al., 1992). This study also investigates the relationships between size effects and characteristics of the bank, borrower and loan.

In terms of bank characteristics, the positive signal value of bank loan announcements should be particularly pronounced if the loan is issued by banks other than Big Four state banks, private banks, banks with higher ranking, and banks in provinces with higher marketization level in credit allocation. This is because the financial conditions of the banks other than Big Four state banks or private banks are healthier and they lend on a commercial basis. In addition, the headquarters or main provincial branches of banks or those in provinces with higher marketization level in credit allocation are able to avoid excessive intervention by local government (Bailey et al., 2010; Dobson & Kashyap, 2006; Shen et al., 2007). For example, local government prefers to minimise the impact on employment rather than repay government-owned creditors.

In contrast, Big Four banks, state owned or controlled banks, local branches of banks, and banks in provinces with lower marketization level in credit allocation are routinely under significant pressure by government to supply "policy loans". Therefore, loans from such banks convey particularly strong negative signals in the market, and the following hypothesis is proposed:

> H_2: The negative effect of a bank loan announcement is particularly significant for loans from Big Four state banks, state owned or controlled banks, lower ranking banks and banks in provinces with lower marketization level in credit allocation.

Borrower characteristics may explain cross-sectional differences in bank loan announcement effects. Prior studies argue that the positive effect of a bank loan announcement is particularly strong for problematic borrowing firms including firms that are opaque, have a higher possibility of expropriation or tunnelling, have ineffective expropriation-reduction mechanisms, are controlled by the state and are in financial distress (Bailey et al., 2010; Chemmanur & Fulghieri, 1994; Diamond, 1991b; Slovin et al., 1992).

However, bank loan announcements may convey negative information if bank loans are used to prop up troubled firms for non-commercial reasons and will be more pronounced for problematic borrowing firms. The following hypothesis is proposed:

> H_3: The negative effect of a bank loan announcement is particularly significant for problematic borrowing firms.

Similarly, features of loans may influence the market response to bank loan announcements. According to previous studies (Diamond, 1991a; Krishnaswami et al., 1999; Preece & Mullineaux, 1996; Rajan & Winton, 1995), most loan characteristics, such as loan size, loan term, loan contract with or without covenant/collateral, and loan syndication, marginally influence the size of the announcement effect, but have no influence on the sign of the announcement effect.

In banking markets where bank loans are driven purely by commercial objectives, the positive signal value of bank loan announcements should be significant if the loans are large, short term, have covenant/collateral, and less syndication (Diamond, 1991a; Krishnaswami et al., 1999; Preece & Mullineaux, 1996; Rajan & Winton, 1995). In a government-controlled banking system in which non-commercial motivations are common, the negative effect of bank loan announcements should be particularly prominent if the loans have the aforementioned characteristics. The following hypothesis is proposed:

H_4: The negative effect of a bank loan announcement is particularly significant for loans with greater amount, shorter term, with covenant/collateral, and less syndication.

In addition, Bailey et al. (2010) propose that the loan purpose may affect the magnitude of the bank loan announcement effect. Thus the following hypothesis is proposed:

H_5: There is a significant difference in market response to bank loan announcements among different bank loan purposes.

Brumm (1996) and Koh (2001) suggest that the industry in which a borrowing firm belongs may affect the magnitude of bank loan announcement effect. Thus, the following hypothesis is proposed:

H_6: There is a significant difference in market response to bank loan announcements among different industries.

3.3 Data Collection and Sample Selection

This study sampled all bank loan announcements from companies listed in the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE) between 1996 and 2009. The decision to choose 1996 as the starting year is due to the availability of data. The share-split reform started in 2005 which affected the stock price of listed Chinese companies considerably. In order to avoid the influence of the share-split reform, this study divides the sample period into two sub-samples, namely, 1996 to 2004 and 2005-2009.

The three sources of information employed in this study are：

1. China Stock Market and Accounting Research (CSMAR) Database[17]. This database was used to collect most of the data including the bank loan announcement information such as the announcement date, the stock code and name of the borrower, the lender, the loan type, the loan term, any covenant or collateral, loan size and loan interest; stock market trading information such as the daily individual returns and the daily market returns; borrower information such as shareholder information, corporate governance information and accounting data.

[17] The CSMAR database was designed by the China Accounting and Finance Research Centre of the Hong Kong Polytechnic University and developed by Shenzhen GTA Information Technology Company. It covers data on the Chinese stock market and financial statements for China's listed companies since their Initial Public Offerings (IPO).

2. China Financial Newspaper Database[18]. This database was used to verify the accuracy of the bank loan announcement sample and compensate for missing announcements. In addition, this database was used to search whether there were other corporate events, such as financial reporting, mergers and acquisitions, CEO turnovers and lawsuits in the event window. This database was also used to collect the annual reports of listed companies.

3. The marketization index in credit allocation for China's provinces was obtained from Fan and Wang (2001) and Fan, Wang and Zhu (2002, 2004, 2007, 2009).

3.3.1 Bank Loan Announcements

The sample of bank loan announcements was collected from the CSMAR® China Listed Firms' Bank Loans Research Database. In order to verify the accuracy of the sample, we manually matched the sample from CSMAR to the China Financial Newspaper Database and added the missing announcements disclosed in the newspaper but not listed in the CSMAR database.

The study excluded announcements that do not concern the actual bank loans. The disclosure of loan proceedings includes all the information relating to the bank loans. Some listed companies apply for bank loans, but no contracts have been signed between the company and the bank (Bailey et al., 2010; Shen et al., 2007). This study focuses only on bank loans that actually took place, that is, bank loan announcements with contracts. Thus, announcements that were not "actual bank loans" were deleted.

In addition, this study discarded the "credit agreement" announcements. Bailey et al. (2010, p.17) define the "credit agreement" as *"the ceiling on loans may extend to a particular company over a period of time but are not actual loan offers for potential investment projects or other use of funds*". The authors argue that credit agreements may be extended to all companies and therefore may be considered as a very weak loan "pre-qualification" containing less information than an actual bank loan announcement. Bailey et al. (2010) find that credit agreement effects are much weaker than those of bank loans announcements. Thus, this study omitted 786 such announcements.

To minimise the effect of confounding events, this study eliminated "contaminated announcements" (Bailey et al., 2010; Lummer & McConnel, 1989) that accompanied bank loan announcements with other corporate events, such as mergers and acquisitions, CEO

[18] The China Financial newspaper database was designed by Shenzhen Genius Information Technology Co., Ltd under direction of the China's Securities Regulatory Commission (CSRC). It covers all the officially-designated newspapers (China Securities Journal, Shanghai Securities News, Security Daily, China Daily, Financial News, and China Reform Daily) for corporate disclosure.

turnovers, other type of concurrent financing arrangements and lawsuits within the event window of the loan announcements. Furthermore, for the sample period 2005 to 2009, this study excluded announcements with share-split reform during the estimation window and event window to avoid the influence of the share-split reform.

In addition, this study considered only firms that were traded on the SHSE and the SZSE A-shares[19] exchanges. The study includes only the A-share price when the borrowing firms issued both A-shares and B-shares[20]. It also excludes firms that do not issue A- shares; otherwise, we would have had to use the share price of the foreign investors, but such market values are not comparable.

Finally, this study eliminated observations with missing borrower returns in the estimation of the event period, yielding a final sample of 501 bank loan announcements for the period 1996 to 2004 and 106 bank loan announcements for the period 2005 to 2009.

Sorting bank loan announcements by bank, borrower and loan characteristics can lead to a substantial decrease in the sample size. This is because not all of the components of the bank loan announcement are reported. This study can not divide all the bank loan announcements by loan characteristics since loan characteristics are not unitary, that is, a bank loan announcement can include a number of loans from the same bank. Similarly, if a bank loan announcement includes a number of loans from different banks, we divide the bank loan announcement by borrower characteristics.

3.3.2 Daily Stock Return and Market Return

The daily individual stock return and daily A-shares market return were collected from CSMAR® China Stock Market Trading Database. These returns were based on adjusted closing daily prices[21] and have been adjusted for cash dividend reinvestment. In addition, the

[19] A-shares are also known as "Renminbi (RMB)-denominated ordinary shares". They are ordinary shares issued by Chinese companies listed and traded in RMB. They are restricted to domestic investors who are either enterprises or organizations or persons in the PRC (excluding Taiwan, Hong Kong and Macao).

[20] B-shares are domestically listed foreign investment shares. B-shares are issued in the form of registered shares and carry a par value denominated in RMB, to be subscribed for and traded in foreign currencies in either the Shanghai or the Shenzhen stock exchanges. The targeted investors are limited to foreign natural persons, legal persons and other organizations, including those domiciled in Taiwan, Hong Kong and Macao, and PRC citizens living in foreign countries and other investors as stipulated by the CSRC. At present, B-shares investors are mainly institutional investors. The B-share market is separated from the A-share market, with SHSE B-shares denominated in US dollars and SZSE B-shares in Hong Kong dollars.

[21] Due to rights offerings, share splits, new issues and asset restructuring, the closing prices that are announced by the stock exchange undergo certain "adjustments" and are not readily comparable. Therefore, the closing stock prices in CSMAR are adjusted to a comparable closing price by using the first trading day's price as the base price.

daily market returns were based on the total-value-weighted portfolio consisting of all the A-shares traded on the SHSE and the SZSE.

3.4 Research Methodology

The research methodology in this study has two components. First, the event study methodology was used to investigate the borrowers' stock price reaction to bank loan announcements. Following this, the study used the abnormal bank loan announcement return as the dependent variable in a multivariate cross-sectional regression analysis to explain the market response to bank loans announcements.

3.4.1 Event Study Methodology

In order to measure the share price response to bank loan announcements, this study employs the event study method. Event studies are generally used to evaluate the wealth effects of a special event through its influence on the stock price or the market valuation of a firm (Brown & Warner, 1980, 1985; Kothari & Warner, 2007; MacKinlay, 1997). This influence can be in the stock price, return variances, trading volume, operating (accounting) performance and earnings management via discretionary accruals (Kothari & Warner, 2007). This study concentrates only on the stock price effect. Following the seminal article by Fama, Fisher, Jensen and Roll (1969), the fundamental approach is to compare the actual returns during the event period with the returns that one would have normally expected to observe to examine whether there are any abnormal or excess returns associated with the announcement of an exogenous shock.

Previous studies in the event study, such as Brown and Warner (1980, 1985) and Dodd and Warner (1983), are on the assumption that all the information or announcements were entirely unexpected by the market. In a related vein of recent literature, a number of researchers such as Acharya (1988, 1993), Eckbo, Maksimovic and Williams (1990), Li and McNally (2003), and Prabhala (1997) claim that some corporate decisions are partially predictable. In this case, the stock price reaction to the event would be decided by the unexpected part of the announcements. This leads to an alternative, namely, the conditional event-study method, which considers the possible endogeneity of announcements in the presence of private information. The non-conditional event-study method is generally called the traditional or standard event-study method (MacKinlay, 1997; Prabhala, 1997). In spite of the criticism of the traditional event-study method, no empirical analyses have investigated the effect of corporate loan announcements on the value of the firm. All existing studies on this issue have adopted the conventional event study methodology (Aintablian & Roberts, 2000; Armitage,

1995b; Fery et al., 2003). Furthermore, Prabhala (1997) underlines the robustness of the traditional event-study method by showing that it can perform as well as the conditional event-study method. In a survey of more than 500 papers published from 1974 to 2000, Kothari and Warner (2007) assert that the event study method appears to be well-specified and effective in analysing short-horizon events of less than one year.

This study employs the traditional event study method to measure the effects of bank loan announcements on the share price. The procedures follow.

3.4.1.1 Defining the Estimation Window

In general, the estimation period in daily event studies ranges from 100 to 300 days (Peterson, 1989). Based on previous studies, Armitage (1995a) concludes that an estimation period of 100 days or more is appropriate. The estimation window in this study comprises 120 trading days from the period beginning 150 days before the event date (day 0) and ending 31 days before the event date (day −150 to day −31). We allow the estimation window to end 30 days before the event date in this study because the estimation period and the event period were chosen to avoid overlap so that the parameters of the model are not influenced by the event (MacKinlay, 1997; Peterson, 1989).

3.4.1.2 Defining the Event Window

Generally, it is difficult to know with complete certainty if the selected announcement date is indeed the correct date since some companies may promulgate an announcement one day and the financial news may report this information the following day. Thus, the event period may cover a few days surrounding the announcement including at least the announcement date itself and the day after the announcement (MacKinlay, 1997; Peterson, 1989). In addition, the event window may be defined as slightly longer than the specific period of interest including the periods before and after the announcement. In this way, researchers can correct any attenuation bias (information leakage) that has taken place before announcements or/and any market reaction that takes place gradually due to the announcements (MacKinlay, 1997). However, it is worth noting that a longer period does not imply better results since the test for significance of the event study can be decreased by lengthening the event window (Brown & Warner, 1985).

In practice, most event studies adopt lengths of the event period ranging from 21 (day −10 to day 10) to 121 days (day − 60 to day 60) (Peterson, 1989). The literature documents event windows ranging from a one-day event period to a relatively longer period of 41 days. Most U.S. studies tested only a one-day event period ([−1, 0] or [0, 1]) (Best & Zhang, 1993; James,

1987; Lummer & McConnell, 1989; Mikkelson & Partch, 1986). With regard to a longer event window, Armitage (1995b) employs a 41-day event window, comprising 20-pre-event days, the event day, and 20 post-event days, to investigate possible information leakage before the announcement and any gradual response after the announcement. Preece and Mullineaux (1996) apply a relatively longer prior period [−11, −2] to detect any information leakage.

This study took "Day 0" to be the date on which the announcement appears in the media. The study defined 21 days [−10, 10] as the event window following the method of Armitage (1995b) with some changes for the Chinese capital market. These changes include the period before the announcement date since a lot of information may have been divulged before the firms formally release the information (Shen et al., 2007). Employing slightly longer periods after announcements allows for the handling of the slower dissemination of information for less visible and infrequently traded stocks. The event windows in this study were generally wider than those in the U.S. studies. This is because the Chinese market is not as efficient as the U.S. market, which may result in a slower reaction to information in the Chinese capital market (Shen et al., 2007)[22].

3.4.1.3 Choosing the Model and Estimating Parameters

The market model is most commonly used to generate expected returns since no better alternatives have been found (Armitage, 1995a, MacKinlay, 1997). In addition, most event studies employed the market model. This study followed the standard market model approach and employs ordinary least squares (OLS) regressions to estimate the model parameters.

The market model is given as follows:

$$R_{jt} = \alpha_{jt} + \beta_{jt} R_{mt} + \varepsilon_{jt} \tag{1}$$

Where: R_{jt} is the observed rate of return on firm j on day t, α_{jt} is the intercept of firm j on day t, β_{jt} is the systematic risk of firm j on day t, R_{mt} is the return on the market portfolio on day t, ε_{jt} is the error term of firm j on day t.

3.4.1.4 Measuring and Analysing the Abnormal Return

The abnormal return for each day of the event window was calculated using the following equation:

$$AR_{jt} = \varepsilon_{jt} = R_{jt} - \alpha_{jt} - \beta_{jt} R_{mt} \tag{2}$$

[22] Fery et al. (2003) also argue that a 3-day window in the Australian market is not as efficient as the U.S. market.

Where: AR_{jt} or ε_{jt} is the abnormal return on firm *j* on day *t*; R_{jt} is the observed rate of return on firm *j* on day *t*; α_{jt} and β_{jt} are estimated parameters of the market model over the 120-day estimation period of 150 to 31 days before the event day; and R_{mt} is the return on the market portfolio on day *t*.

The estimated abnormal returns need to be standardised to reflect the statistical error in the determination of expected returns before testing whether they are statistically significant (James, 1987; Mikkelson & Partch, 1986; Peterson, 1989). The standardised abnormal return for firm *i* on a day *t* within the event-window was calculated as follows:

$$S_{ie} = \left\{ V_i^2 \left[1 + \frac{1}{N} + \frac{(R_{mt} - \overline{R}_m)^2}{\sum_{i=1}^{N} (R_{mi} - \overline{R}_m)^2} \right] \right\}^{1/2} \tag{3}$$

Where: S_{ie} is the standard deviation of the abnormal returns for firm *i* over *N* periods within the estimation periods; V_i^2 is the residual variance of firm *i*'s market model regression; *N* is the number of days in the period used to estimate the market model (i.e., *N* = 120); R_{mt} is the market return in the event period; R_{mi} is the market return in the estimation period and $\overline{R}_m$ is the mean market return over the estimation period.

A standardised abnormal return for a firm *j* on a day *t* within the event-window (SAR_{jt}) was calculated by dividing the abnormal returns for day *t* with the event-window by the standard deviation of the abnormal returns for the abnormal returns for the estimation period. The calculation is given as follows:

$$SAR_{jt} = \frac{AR_{jt}}{S_{ie}} \tag{4}$$

Where: AR_{jt} is obtained from equation (2) and S_{ie} is obtained from equation (3).

In order to draw the overall inferences for bank loan announcements of interest, the study aggregates the standardised abnormal return observations (MacKinlay, 1997). The aggregation includes cross-sectional and time-series aggregation. The cross-sectional aggregation examines whether the cross-sectional distribution of returns at the time of an event is abnormal (i.e., systematically different from predicted). Typically, it is interesting to test whether the mean abnormal return at time *t* is equal to zero. The time-series aggregation

establishes whether the average abnormal returns for any interval in the event window are equal to zero.

For a sample of *N* bank loan announcements, the average standardised abnormal return ($\overline{SAR_t}$) for period *t* was calculated as follows:

$$\overline{SAR_t} = \frac{1}{N}\sum_{j=1}^{N} SAR_{jt} \tag{5}$$

Given the assumption that individual abnormal returns are cross-sectionally independent and normally distributed, the t-statistics can be computed as follows:

$$T = \sqrt{N}(\overline{SAR_t}) \tag{6}$$

Where: N is the number of bank loan announcements.

Under the null hypothesis of no announcement effect, the standardised cumulative abnormal returns are distributed asymptotically N (0, 1) and the mean standardised cumulative abnormal return is distributed N $(0,1/\sqrt{N})$: H_0: $\overline{SAR_t} = 0$

The cumulative average standardised abnormal return over any multi-period interval during the period of interest was calculated as follows:

$$CSAR(t_1,t_2) = \sum_{t=t_1}^{t_2} SAR_t \tag{7}$$

Where: $CSAR(t_1,t_2)$ is the cumulative average standardised abnormal return which starts at time t_1 to time t_2.

In order to confirm the robustness of the parametric tests, this study follows Aintablian and Roberts' (2000) and Bailey et al.'s (2010) framework to perform the nonparametric sign test and Wilcoxon signed-rank test.

Following Bailey et al. (2010), the sign test categorises data into binary outcomes with a null hypothesis that the percentage of negative $\overline{SAR_t}$ ($CSAR(t_1,t_2)$) is equal to the percentage of positive $\overline{SAR_t}$ ($CSAR$). The alterative hypothesis is that the percentage of negative $\overline{SAR_t}$ ($CSAR$) is greater than the percentage of positive $\overline{SAR_t}$ ($CSAR(t_1,t_2)$).

Following Aintablian and Roberts (2000) and Bailey et al. (2010), the Wilcoxon signed-rank test tests the information of magnitudes with the null hypothesis that there is no difference

between the negative and positive $\overline{SAR_t}$ ($CSAR(t_1,t_2)$).The alternative hypothesis is that there is a difference between the two populations. The corresponding test statistic is:

$$z = \frac{T_+ - \mu_{T_+}}{\sigma_{T_+}} \tag{8}$$

Where: T_+ is the sum of the ranks for positive abnormal returns.

If the abnormal returns are centred at 0, i.e., H_0 is true, then T_+ is approximately a normal random variable with mean ($\mu_{T_+} = \frac{n(n+1)}{4}$) and standard deviation ($\sigma_{T_+} = \sqrt{\frac{n(n+1)(2n+1)}{24}}$) (Kvanli, Guynes & Pavur, 2002).

3.4.2 Multivariate Cross-sectional Analysis Model

This study also conducts a cross-sectional regression analysis by employing ordinary least squares (OLS) regressions to explain the stock response to bank loan announcements. The OLS regression model uses t-statistics calculated from heteroscedastic corrected standard error (White, 1980) and was estimated as follows:

$$CAR(t_1,t_2) = \alpha + \beta_1(BANK) + \beta_2(BORROWER) + \beta_3(LOAN) + \varepsilon_{it} \tag{9}$$

The dependent variable $CAR(t_1,t_2)$ is the cumulative abnormal return which starts at time t_1 to time t_2. The independent variables are the proxies for bank, borrower and loan characteristics.

3.4.2.1 Measurement of Bank Characteristics

This study divides banks into two categories: Big Four state-owned banks (BIG4_BANK), equals one, and zero otherwise (Bailey et al., 2010). According to bank ownership, this study divided banks into two categories: state-owned/controlled banks and private banks. Except for China Minsheng Bank and foreign banks, the other commercial banks fall into the state-owned/controlled bank category. This study employed a dummy variable with a value of one if the lender is one of the state owned or controlled banks (BANK_OWNERSHIP), and zero otherwise (Bailey et al., 2010). In terms of bank ranking, this study assumes that the ranking of local branches is lower than that of headquarters or provincial branches. The study employs a dummy variable with a value of one if a loan is issued by a bank's local branches below the provincial level (BANK_RANKING), and zero otherwise (Bailey et al., 2010). In addition,

the marketization index in credit allocation for China's provinces[23] from Fan and Wang (2001) and Fan et al. (2002, 2004, 2007 & 2009) is used to divide banks according to their location (BANK_LOCATION). The study employs a dummy variable with a value of one if the bank in the province with the lower marketization level in credit allocation.

3.4.2.2 Measurement of Borrower Characteristics

To identify borrower characteristics, this study measures the information opaqueness, the possibility of expropriation or tunnelling, the expropriation-reduction mechanisms and the financial situation.

3.4.2.2.1 Measurement of Information Opaqueness

Following Slovin et al. (1992), firm size (BORROWER_SIZE) (the natural logarithm of total assets) is employed as a proxy measure of the level of information opaqueness. It is expected that information opaqueness will be more pronounced in smaller firms. This study classifies sample firms as small if the natural logarithm of total assets is less than the median natural logarithm of total assets of all the listed firms in the relevant year and large if greater than median value.

3.4.2.2.2 The Possibility of Expropriation/Tunnelling

In order to measure the possibility of expropriation or tunnelling, this study first identifies the ultimate controlling shareholders. This study uses the ownership structure chain to identify the controlling shareholder. Since the regulation for the disclosure of the ownership structure chain in China was not in effect until 2001, we follow Fan et al. (2005, 2007) to trace the ownership information to the IPO year based on the ownership information disclosed in 2001. If there is no change in the ownership structure, we may conclude that the ultimate controlling shareholder remains the same since the IPO. If there is any change in the ownership structure, we identify the ultimate controlling shareholder in the IPO year from the IPO prospectus, media reports and the websites of the company and its affiliated companies.

The controlling shareholder can expropriate outsiders through diverting valuable resources out of the firms. Previous studies attempt to measure the expropriation problem or tunnelling using different proxies for the degree of expropriation. For example, Claessens, Djankov, Fan and Lang (2002), Faccio and Lang (2002), and La Porta et al. (1999) propose that the divergence between cash-flow rights and control rights is the root of the expropriation problem. Thus, the deviation of cash flow from control rights can be a proxy for the

[23] According to Fan, Wang and Zhang (2000), while having achieved great progress in its market-oriented institutional transformation and economic development, China has been suffering significantly and with growing problem of regional disparity. The purpose of employing the marketization index in credit allocation for China's provinces is to examine the magnitude of local government intervention in banks located in different provinces.

likelihood of expropriation. The greater divergence in voting and cash-flow rights of controlling shareholders, the more likely they are to expropriate minority shareholders.

A second strand of literature uses the value/performance of a firm (market-to-book ratios or Tobin's Q) as a proxy for the likelihood of expropriation (Claessens et al., 2002; Joh, 2003; La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2002; Lemmon & Lins, 2003; Lins, 2003; Mitton, 2002). For example, using a Southeast Asian sample, Claessens et al. (2002) find that market-to-book ratios are negatively related to the divergence between cash-flow and control rights. This implies that ex ante firms are more likely to expropriate traded at a lower valuation.

A third vein of literature uses the specific action of expropriation as a proxy for the likelihood of expropriation. For example, studies examine expropriation problems from a related-party transaction perspective (Cheung et al., 2006; Jian & Wong, 2003), from a dividend perspective (Chen et al., 2008; Gugler & Yurtoglu, 2003), and from earning management (Ding et al., 2007; Jian & Wong, 2003; Leuz, Nanda & Wysocki, 2003; Liu & Lu, 2003). Atanasov, Black and Ciccotello (2008) divide actions of expropriation into three broad groups: cash flow, asset, and equity tunnelling and present a model how each type of tunnelling affects share prices and financial metrics. The authors conclude that the different ways taken by insiders to expropriate outsiders on share price and financial metrics can be measured by gross margin, operating margin, return on asset (ROA), Tobin's Q and P/E ratio.

This study uses three alternative measures as proxies for the possibility of expropriation or tunnelling. These various measures involve different proof of the existence of expropriation for the purpose of furnishing a robust and comprehensive investigation into the level of expropriation for outside investors in Chinese listed firms. The three measures are divided into two categories. The first category concerns the roots of the expropriation problem (the degree of divergence between cash-flow rights and control rights); the second category focuses on the effect of expropriation on share price and financial metrics.

I. The Divergence between Cash-flow Rights and Control Rights (DCC)

Previous studies (Claessens et al., 2002; Faccio & Lang, 2002; La Porta et al., 1999) show that the greater the divergence in voting and cash-flow rights of the ultimate controlling shareholders, the more likely they are to expropriate minority shareholders and creditors. The size of cash-flow rights and voting rights of the ultimate controlling shareholder is identified by La Porta et al. (1999), and explored further by Claessens et al. (2000), Claessens et al. (2002), Faccio and Lang (2002) and Faccio, Lang and Young (2001). These authors propose

that the definition of control takes only voting rights into account whereas the definition of ownership is based on cash-flow rights. They define the difference between voting and cash-flow rights of the ultimate controlling shareholder as the percentage of votes controlled by the firm's ultimate controlling shareholder minus the percentage of cash-flow rights owned by the firm's ultimate controlling shareholder. According to Claessens et al.'s (2002) and Faccio et al.'s (2001) studies, the fraction of cash flow rights owned by the ultimate controlling shareholder is defined as the fraction of cash flow rights held by the ultimate controlling shareholder multiplied by the fraction of shares owned in each firm in the ownership chain. For example, if an investor owns 30% of the shares of Company A, which in turn owns 20% of the shares of Company B, which in turn owns 10% of the shares of Company C, the investor would end up with 0.6% (30%×20%×10%) of the ownership (cash-flow) rights of Company C but 10% of its control rights. In this case, the difference between voting rights and cash-flow rights for the investor is 9.4% (10%－0.6%). If there are several chains of ownership between a shareholder and the firm, this study adopts the sum of control rights across these chains following Claessens et al.'s (2002), Faccio and Lang's (2002) and La Porta et al.'s (1999) methods.

II. The Effect of the Expropriation Problem

According to Atanasov et al. (2008), the expropriation of creditors is categorised as cash flow tunnelling, and affects the firm's operating margin, ROA and Tobin's Q. In addition, Claessens et al. (2002), La Porta et al. (2002), Lemmon and Lins (2003) and Mitton (2002) suggest that a measure of firm performance (Market-to-book ratio or Tobin's Q) can be a proxy for the level of the expropriation problem since expropriation by the majority shareholder is detrimental to the firm's value.

This study used the firm's ROA and Tobin's Q to proxy for the level of the expropriation problem. ROA is defined as after tax profits divided by the book value of total assets. Tobin's Q is measured as the market value of equity and debts over the replacement value of net fixed assets and inventory. Tobin's Q can be calculated as:

$$Tobins'Q = \frac{MVCS + BVPS + BVLTD + BVINV + BVCL - BVCA}{RVAI} \qquad (10)$$

Where: $MVCS$ is the market value of the firm's common stock shares, $BVPS$ is the book value of the firm's preferred stocks, $BVLTD$ is the book value of the firm's long-term debt, $BVINV$ is the book value of the firm's inventories, $BVCL$ is the book value of the firm's

current liabilities, *BVCA* is the book value of the firm's current assets, and *RVAI* is the replacement value of net fixed assets and inventory.

Because the replacement value of net fixed assets and inventory is unavailable for Chinese firms, this study uses the book value of total assets as a proxy following Bai et al.'s (2004), Chung and Pruitt's (1994), Gunasekarage, Hess and Hu's (2007) and Wei et al.'s (2005) methods. In addition, since no preferred stock exists in China, the above formula reduces to:

$$Tobins'Q = \frac{MVCS + BVLTD + BVINV + BVCL - BVCA}{BVTA} \qquad (11)$$

Where: *BVTA* is the book value of the firm's total assets.

Tobin's Q is a market-based measurement for firm performance. However, a large proportion of shares of Chinese listed firms cannot be traded and do not have market value. There is no consensus about how to calculate the total market value of firms with a substantial percentage of non-tradable shares. Bai et al. (2004) suggest using the price of the tradable shares as a proxy for the price of the non-tradable shares which results in overstatement of the market valuation of the firm since non-tradable shares should have a lower price than the tradable ones. Chen and Xiong (2002) find that the non-tradable state-owned shares and legal-person shares in China have an average illiquidity discount of between 70 and 80% when they are traded in the informal markets. Therefore, Bai et al. (2004) adjust the measurement of Tobin's Q to take into account of illiquidity discounts of 70 to 80% in the Chinese market. The authors suggest these discounted measures may better reflect the market valuation of China's listed firms. This study follows Bai et al.'s (2004) modification to define two valuation measures: using a 70% and an 80% discount for non-tradable shares. We multiply the number of tradable shares by the market price, and then add the number of non-tradable shares discounted by 30 and 20% of the market share price respectively to obtain the value of equity in the Tobin's Q formula denoted by Tq_70 and Tq_80, respectively. For example, Tq_70 was calculated as:

$$Tq\_70 = \frac{TRA*MP + NTRA*MP*30\% + BVLTD + BVINV + BVCL - BVCA}{BVTA} \qquad (12)$$

Where: *TRA* is the number of tradable shares; *MP* is the market share price; and *NTRA* is the number of non-tradable shares.

III. Measurement of Expropriation-reduction Mechanisms

Apart from the root and the impacts of the expropriation problem, several researchers examine this issue from the agency-reduction mechanism perspective (Agrawal & Knoeber, 1996; Ang, Cole & Lin, 2000; Fama, 1980; Shleifer & Vishny, 1997; Singh & Davidson III, 2003). The authors argue that some effective mechanisms could improve firm performance by mitigating the expropriation problem. The first category concerns ownership-related arrangements. The second category focuses on corporate governance mechanism related arrangements.

i Ownership-related Arrangements

Theoretical and empirical studies show that block shareholders, insider/managerial ownership and institutional ownership have positive impacts on corporate governance (Agrawal & Knoeber, 1996; Ang et al., 2000; Jensen & Mecking, 1976; Singh & Davidson III, 2003). For example, Agrawal and Knoeber (1996), Shleifer and Vishny (1997), Yafeh and Yosha (2003) argue that block ownership provides a watchdog or efficient monitoring role over board and managerial decision-making to maximise the value of their shareholding and lower agency costs between managers and shareholders. Ang et al. (2000), Jensen (1993), Jensen and Mecking (1976), Singh and Davidson III (2003) and Yermack, (1996) assert that larger insider ownership (sometimes referred to as managerial ownership or board ownership) helps to control the agency problem by closely aligning the incentives and interests of managers with those of outside shareholders. Agrawal and Knoeber (1996), Brickley, Lease and Smith (1988) and Pound (1988) hold that institutional ownership (by banks, insurance companies, mutual funds, brokerage houses, endowments/foundations, nonbank trusts, investment counsel firms, miscellaneous financial services and unidentified institutions) is an effective mechanism to facilitate the alignment of insiders' and outsiders' interests.

However, every ownership-related arrangement has a critical role in corporate governance because of the different level of ownership concentration. For example, Shleifer and Vishny (1997) summarise that, as ownership concentration exceeds a certain threshold, the large shareholders get nearly full control over the corporation and are wealthy enough to use firms to pursue their private benefits. Such private benefits cannot be shared by small shareholders and the benefits may be at the expense of minority shareholders. La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000b) suggest the argument of insiders varies from country to country because of different ownership structures. The role of insiders is played by the managers in countries with dispersed ownership structures, but the controlling shareholders are the insiders when ownership is highly concentrated since most mangers in these firms are appointed or

controlled by the controlling shareholders. In such situations, insider ownership is not a mechanism that is able to alleviate expropriation of all shareholders by managers of the firms but as a mechanism to reinforce expropriation of minority shareholders by controlling shareholders. Berle (1959) and Pound (1988) hold that institutional shareholders may be ineffective monitors because they have little time or resources to devote to active monitoring beyond that of underperforming firms in which they have large equity stakes.

There are two effects of high ownership concentration: (1) the alignment effect (higher cash-flow rights, and higher alignment), and (2) the entrenchment effect (lower cash-flow rights, and higher entrenchment at a lower cost). Increasing ownership concentration from a low level addresses the free-rider problem among shareholders so that the alignment effect dominates the entrenchment effect. However, a further increase in ownership concentration beyond a certain level reduces the constraint on tunnelling from other shareholders so that the entrenchment effect dominates the alignment effect (Faccio & Lang, 2002; Laeven & Levine, 2008).

Recent studies propose that the power balance in complex ownership structures with multiple large shareholders (the role of the second largest shareholder or the role of top five or top 10 shareholders) can curb the expropriation problem and protect outside investors' interests (Bennedsen & Wolfenzon, 2000; Gomes & Novaes, 2005; Liu, 2005; Wang & Deng, 2006). This study uses the power balance in ownership structure to proxy for one expropriation-reduction mechanism.

Following Bennedsen and Wolfenzon (2000) and Liu (2005), this study uses two variables to measure the power balance in ownership structures. The first measure (Z-INDEX) was the total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder. The second measure (CR5 − CR1) was the total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder.

ii Corporate Governance Related Arrangements

Corporate governance research focuses on the issue of who should the corporate 'government' represent. The roots of corporate governance studies can be traced back to the debates between Berle and Means (1932) and Dodd (1932). Since then, different arguments continue on this subject without reaching a consensus. Shleifer and Vishny (1997) conduct a survey of the present-day literature on corporate governance and state that the corporate governance problem that each country faced varies across the ownership structure. The

authors propose corporate governance as a set of models and mechanisms through which outside investors are able to protect themselves against expropriation by the insiders and ensure returns on their investment.

Over the past three decades, a substantial number of potential agency-reduction mechanisms have been evaluated. The first category concerns internal corporate governance mechanisms including the board of directors, executive compensation and financial disclosure. The second category focuses on external mechanisms, such as external monitoring by creditors, the market for corporate control, and the law and regulatory protection.

This study uses corporate governance mechanisms, including the size of the board of directors, the composition of the board of directors, the existence of the CEO and board chairman duality, the number of board of directors meetings, the size of supervisory board and the number of supervisory board meetings to proxy for the corporate governance mechanism related arrangements.

Criticisms of and proposals for the role of boards of directors in corporate finance have proliferated over the last 30 years. Fama (1980) argues that the board of directors is one of the central internal corporate mechanisms for resolving agency problems. Based on two different legal systems, there are two models of the board: a one-tier board in Anglo-Saxon countries, and a two-tier board in Germany, Japan and some North-European countries (OECD, 2004). Two-tier boards separate the management function and the supervisory function into different bodies. Such systems typically have a “management board” composed entirely of executives and a “supervisory board” composed of non-executive board members. The former is called the “board of directors” and the latter is called the “supervisory board”.

Potential governance-related attributes focus on the board of directors including the size of the board, the independence of board members, the existence of the CEO and board chairman duality, and the frequency of board of directors meeting. A board with a relatively smaller size (Bhagat & Black, 2002; Eisenberg, Sundgren & Wells, 1998; Yermack, 1996), relatively higher independence (Bhagat & Black, 2002; Jensen, 1993; Klein, 1998), splitting the positions of CEO and chairman (Boyd, 1995; Brown & Caylor, 2006; Core, Holthausen & Larcker, 1999; Mak & Li, 2001) and higher board meeting frequency per year (Firth, Fung & Rui, 2007) is more effective in promoting corporate governance behaviour.

Given that very few countries have supervisory boards, their influence on the agency problem has not previously been investigated. A few related studies examine the effect of the supervisory board on firm performance and earnings information (Cho & Rui, 2007; Firth et

al., 2007). For example, Firth et al. (2007) find that a supervisory board with relatively larger size and higher meeting frequency per year is more effective in monitoring the firm's accounting system and the financial statements.

Following Henry (2006), the size of the board of directors (BOARD_SIZE) in our study is measured as the natural logarithm of the total number of board directors; the composition of the board of directors (BOARD_COMPOSITION) is calculated as the number of independent directors on the board relative to the total number of board members. To identify the existence of CEO and board chairman duality (DUALITY), this study employs a dummy variable with a value of one if one person holds both positions, and zero otherwise (Cheung et al., 2006; Henry, 2006). The size of the supervisory board (SB_SIZE) is the natural logarithm of the total number of supervisory board members (Firth et al., 2007). The frequency of board of directors meetings (BOARD_MEETING) is the number of board meetings per year, and the frequency of supervisory meetings (SB_MEETING) is the number of supervisory meetings per year (Firth et al., 2007).

Companies that have issued offshore shares such as B shares or H shares or N shares are subject to stricter legal rules and more transparent financial disclosure requirements. In addition, the monitoring systems of foreign investors are relatively more sophisticated. Hence, the dummy variable (BHN) may be viewed as a proxy for a better legal environment and effective corporate governance mechanisms in our study (Bai et al., 2004).

External mechanisms focus on external monitoring by creditors, the market for corporate control, and the legal and regulatory protection (Shleifer & Vishny, 1997). Effective monitoring by creditors (Cole, 1998; Diamond, 1984; Petersen & Rajan, 1994), active market for corporate control (Agrawal & Knoeber, 1996; Fama, 1980; Weir, Laing & McKnight, 2002) and stronger investor protection by law (La Porta et al., 1997, 1998, 2000a) have positive effects on corporate governance. However, external mechanisms are not active in China and are excluded in this study.

3.4.2.2.3 Identification of Borrowers' Financial Status

Under the CSRC guidelines, a listed firm should be recognised as encountering "abnormality of financial situation" if one of the following situations takes place: (1) the firm experiences a net loss for two consecutive years; (2) the value of the net worth per share is less than the face value of the stock in the last year; (3) the auditor presents an adverse opinion or a disclaimer opinion on the financial report of the last year; (4) the value of the equity ownership recognised by the auditor and the departments concerned is less than the value of registered

capital in the last year; and (5) other financial situation abnormality judged by CSRC, or SHSE and SESE (Deng & Wang, 2006). In 1998, the CSRC introduced the "Special Treatment (ST)" designation policy for listed firms that suffer "abnormality of financial situations" or "other situation abnormality". According to Deng and Wang (2006) and Jiang, Lee and Yue (2008), ST status can be regarded as a comparable measure of financial distress since Chinese firms rarely declare actual bankruptcy[24]. Thus, this study uses the ST status as a proxy for financial distress.

3.4.2.3 Measurement of Loan Characteristics

Following Bailey et al. (2010), the loan size (LOAN_SIZE) is the total amount of loan divided by the total assets at the end of the last year. In addition, this study assumes that a loan with one year or less maturity is short term loan (LOAN_MATURITY). All other variables of loan characteristics can be directly observed.

3.5 Chapter Summary

This chapter first discusses the hypotheses of the study followed by a review of relevant literature. Following this, the chapter describes the data sources and research methodologies used in this study. Appendix C summarises the definition and computation of all variables used in this study.

[24] The bankruptcy law in China was adopted in December 1986 with no amendments so far. The law is for SOEs only and is outdated. Some local governments set up their own regulations to regulate the bankruptcy of companies within their administrative territory (Wu, 2005).

Chapter 4
Empirical Results

4.1 Introduction

This chapter presents the empirical results and findings. Section 4.2 provides the characteristics of the sample and descriptive statistics on banks, borrowers and loans. The summary statistics on market response to bank loan announcements are presented in Section 4.3. Section 4.4 provides summary statistics on the cumulative abnormal returns by bank, borrower and loan characteristics. Results for multivariate cross-sectional analysis are presented and discussed in Section 4.5. The final section summarises the findings of this study.

4.2 Summary Statistics

4.2.1 Summary Statistics for the Sample Period 1996 to 2004

Table 4.1 shows the sample characteristics and descriptive statistics of banks, borrowers and loans for the sample period 1996 to 2004. Panel A presents the annual distribution of the 501 bank loan announcements in the final sample. It shows that bank loan announcements from 1996 to 2000 are fewer than those from 2001 to 2004. This is because Chinese companies offering securities are not required to disclose the information to the public until 1998 (Trading Rules of Shanghai Stock Exchange, 1998; Trading Rules of Shenzhen Stock Exchange, 1998). Until 2000, companies offering securities were required to disclose important issues on one of the officially-designated media by the CSRC (The First Revision of Trading Rules of Shanghai Stock Exchange, 2000; The First Revision of Trading Rules of Shenzhen Stock Exchange, 2000). Thus, records on bank loan announcements before 2000 are rare.

Panel B in Table 4.1 provides the descriptive statistics of bank characteristics for the sample period 1996 to 2004. The results show that for over half of the loan sample (259 out of 453), the bank loan announcements, including a number of loans from different banks, are made by one of Big Four state-owned banks. Almost all loans (473 out of 487) are from state owned or controlled banks, with only 13 loans from a privately-owned bank and one loan from a foreign bank. Nearly, two-thirds of loans (278 out of 451) are issued by local branches. In addition, almost two-thirds of loans (320 out of 485) are made by banks that are in provinces with a higher marketization level in credit allocation.

Table 4.1 Sample characteristics and descriptive statistics for bank loans in China (1996-2004)

Panel A: Annual distribution of "clean" bank loan announcements in the final sample (501 bank loan announcements)	
Year of announcement	Number of announcements in the final sample
1996	1
1997	0
1998	2
1999	8
2000	22
2001	75
2002	133
2003	135
2004	125

Panel B: Descriptive statistics of lending banks	Observations
Lender is one of Big Four banks	259
Lender is one of state owned or controlled banks	473
Lender is one of privately owned banks	14
Lender is one of the local branch banks	278
Lender is one of the banks in the province with higher marketization level in credit allocation	320

Table 4.1 (continued)

Panel C: Descriptive statistics of borrowers	
All bank loan announcement observations	501
Firm-year observations	326
Larger borrowers	150
Borrowers with divergence between cash-flow rights and control rights	208
Borrowers with negative profits in the previous year	51
Borrower's control shareholder is state or state-related institutions	349
Borrowers with combined CEO-Chair structure	70
Borrower's equity includes B or H or N shares	20
Borrowers under Special Treatment (ST) status	112
Borrowers industry	
Borrowers from construction industry	9
Borrowers from farming, forestry, animal husbandry and fishery industry	6
Borrowers from information technology industry	40
Borrowers from integrated industry	52
Borrowers from manufacturing industry	203
Borrowers from mining and quarrying industry	4
Borrowers from production or supply of power, gas and water industry	28
Borrowers from real estate industry	81
Borrowers from social services industry	19
Borrowers from transmitting, culture industry	8
Borrowers from transportation, storage industry	32
Borrowers from wholesale and retail trades industry	19

Table 4.1 (continued)

Panel C: Descriptive statistics of borrowers (continued)	Mean	Median	Minimum	Maximum	Observations
Total assets (million yuan)	1597.79	859.96	114.50	149949.10	501
Tradable shares market value (million yuan)	911.98	662.80	121.92	9619.65	501
Borrowers' total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder (Z-Index)	37.34	3.59	1.00	935.56	501
Borrowers' total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder (CR5－CR1)	18.19%	18.67%	0.21%	81.28%	501
Borrowers' board size	0.95	0.95	0.60	1.23	501
Percentage of independent directors on the borrowers' board	21.35%	25.00%	0.00%	50.00%	393
The number of borrowers board meetings in previous year	8.68	8.00	1.00	30.00	501
Borrowers' supervisory board size	0.58	0.48	0.30	0.95	501
The number of borrowers' supervisory board meetings in previous year	3.69	3.00	0.00	9.00	501
Panel D: Descriptive statistics of loans	Mean	Median	Minimum	Maximum	Observations
Amount of loan (million yuan)	101.72	56.50	2.00	5750.50	488
Maturity of loan (years)	1.46	1	0.08	10	460
Interest rate on loan (%)	5.56	5.31	3.51	7.25	248
Loans with covenants/collateral					294
Non-syndicated loans					496
Loans for capital expenditure					313
Loans for long-term investment					64
Loans to repay existing debt					15
No specific purpose					109

Note: The sample consists of "clean" bank loan announcements made by companies listed on the SHSE and the SZSE from 1996 to 2004. "Clean" loan announcements are not contaminated by any confounding corporate events and have returns based on actual transaction prices.

Panel C in Table 4.1 summarises the borrower characteristics. There are 326 borrowing firms in the full sample. The firm size of the sampled firms is smaller than the average of all listed firms. The average total assets of the borrowers are 1597.79 million yuan, which is less than the mean (2499.74 million yuan) of the total assets of all listed firms.

Panel C of Table 4.1 also provides information about some borrowers' qualities. For example, 150 of 501 announcements are by larger borrowers; 208 of 501 announcements are by borrowers with a divergence between cash-flow rights and control rights; 51 of 501 announcements are by borrowers with negative profits in the previous year; 349 of 501 announcements are by borrowers whose controlling shareholder is the state or a state-related institution; 70 of 501 announcements are by borrowers with combined CEO-Chair structure, 20 of 501 announcements are from firms whose equity includes foreign-targeted B or H or N shares; and 112 of 501 announcements are by borrowers currently with "Special Treatment" status.

In addition, the results in Panel C in Table 4.1 show borrowers in the study sample experience a lower expropriation-problem structure than the average of all listed firms. For example, the power balance in the ownership structure of the study sample is better than the average of all listed firms. The average of the Z-Index (the total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder) is 37.74, which is less than the mean (52.79) of the Z-Index of all listed firms. The average of CR5 － CR1 (total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder) is 18.19%, which is larger than the mean (14.80%) of CR5－CR1 of all listed firms. The mean of the borrowers' board meetings in previous announcement year is 8.68, more than the mean (6.93) of board meetings of all listed firms. The mean of the borrowers' supervisory board meetings in the previous year is 3.69, slightly more than the mean (3.23) of supervisory board meetings of all listed firms.

However, the results in Panel C in Table 4.1 show that borrowers in the study sample experience a higher expropriation-problem structure than the average of all listed firms. For instance, the mean of the percentage of independent directors on the borrowers' board is 21.35%, which is slightly less than the mean (28.90%) percentage of independent directors on board of all listed firms. The mean of borrowers' supervisory board size is 0.58, which is slightly smaller than the mean (0.61) of supervisory board size of all listed firms. There is no significant difference in the board size between the study sample and all listed firms. Finally,

the largest percentage of the loan announcements granted to borrowers is in manufacturing industries (203 out of 501).

Panel D in Table 4.1 presents the loan characteristics. The average loan size is 101.72 million yuan, which is consistent with the fact that only firms obtaining large loans are required to disclose bank loan announcements. The variation in the loan maturity is moderate, with a mean maturity of 1.46 years. However, there is little variation in the loan interest rates, with a mean interest rate of 5.56%. The relatively little variation in the interest rates reflects Chinese banks have little flexibility in determining their loan interest rates. Until 1 January 2004, the People's Bank of China (PBOC) applied a floating band for the lending rate[25]. Furthermore, most loans (496 out of 501) are made by single banks. Almost two-thirds of the loans require covenants or collateral. Finally, 313 loans are for capital expenditure, 64 loans for long-term investment and 15 loans to repay existing debt.

4.2.2 Summary Statistics for the Sample Period 2005 to 2009

Table 4.2 shows the sample characteristics and descriptive statistics of banks, borrowers and loans for the sample period 2005 to 2009. Panel A presents the annual distribution of the 106 bank loan announcements in the final sample. It shows that bank loan announcements from 2005 to 2009 are much fewer than those from 1996 to 2004. This is because we excluded announcements with share-split reform during the estimation window in order to avoid the influence of the share-split reform. In addition, the required reserve ratio for commercial banks from 2005 and the lending rate increased from 2004. From April 25, 2004 to September 24, 2008, China's central bank raised the required reserve ratio for commercial banks 18 times from 7.5% to 17.5% (see Table 4.3). Similarly, the lending rate increases from 5.31% to 7.47% during the period of October 29, 2004 to September 15, 2008 (see Table 4.4). These changes imply that the government wanted to discourage lending from 2005 to 2008. Listed firms thus prefer to raise funds externally since it is cheaper. Although lending was encouraged after the "global financial crisis", there is no significant change in the number of bank loan announcements.

[25] The PBOC issued "The Interpretation of Policies on Expanding the Floating Range of Lending Rates" in 2003.

Table 4.2 Sample characteristics and descriptive statistics for bank loans in China 2005-2009

Panel A: Annual distribution of "clean" bank loan announcements in the final sample (106 bank loan announcements)	
Year of announcement	Number of announcements in the final sample
2005	40
2006	5
2007	21
2008	22
2009	18

Panel B: Descriptive statistics of lending banks	Observations
Lender is one of Big Four banks	37
Lender is one of state owned or controlled banks	85
Lender is one of privately owned banks	9
Lender is one of the local branch banks	53
Lender is one of the banks in the province with higher marketization level in credit allocation	58

Table 4.2 (continued)

Panel C: Descriptive statistics of borrowers	
All bank loan announcement observations	106
Firm-year observations	84
Larger borrowers	53
Borrowers with divergence between cash-flow rights and control rights	58
Borrowers with negative profits in the previous year	7
Borrower's control shareholder is state or state-related institutions	58
Borrowers with combined CEO-Chair structure	14
Borrower's equity includes B or H or N shares	11
Borrowers under Special Treatment (ST) status	7
Borrowers industry	
Borrowers from construction industry	4
Borrowers from farming, forestry, animal husbandry and fishery industry	0
Borrowers from information technology industry	1
Borrowers from integrated industry	9
Borrowers from manufacturing industry	53
Borrowers from mining and quarrying industry	1
Borrowers from production or supply of power, gas and water industry	7
Borrowers from real estate industry	8
Borrowers from social services industry	0
Borrowers from transmitting, culture industry	2
Borrowers from transportation, storage industry	20
Borrowers from wholesale and retail trades industry	1

Table 4.2 (continued)

Panel C: Descriptive statistics of borrowers (continued)	Mean	Median	Minimum	Maximum	Observations
Total assets (million yuan)	3485.04	1535.87	239.09	33134.25	106
Tradable shares market value (million yuan)	1668.32	750.34	99.00	16929.54	106
Borrowers' total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder (Z-Index)	26.87	5.71	1.00	293.94	106
Borrowers' total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder (CR5－CR1)	15.82%	12.50%	0.60%	48.35%	106
Borrowers' board size	0.99	0.95	0.70	1.18	106
Percentage of independent directors on the borrowers' board	35.00%	33.33%	25.00%	57.14%	106
The number of borrowers board meetings in previous year	9.39	8.00	3.00	33.00	106
Borrowers' supervisory board size	0.55	0.48	0.30	0.85	106
The number of borrowers' supervisory board meetings in previous year	3.99	4.00	1.00	9.00	106
Panel D: Descriptive statistics of loans	Mean	Median	Minimum	Maximum	Observations
Amount of loan (million yuan)	457.92	69.50	12.20	9500.00	82
Maturity of loan (years)	2.36	1	0.5	14	70
Interest rate on loan (%)	6.16	5.94	4.78	9.83	37
Loans with covenants/collateral					68
Non-syndicated loans					97
Loans for capital expenditure					59
Loans for long-term investment					20
Loans to repay existing debt					2
No specific purpose					25

Note: The sample consists of "clean" bank loan announcements made by companies listed in the SHSE and the SZSE from 2005 to 2009. "Clean" loan announcements are not contaminated by any confounding corporate events and have returns based on actual transaction prices.

Table 4.3 Adjustments of the required reserve ratio in China

Date	Before Adjustment	After Adjustment	Range of Adjustment
1984	The central bank stipulated the required reserve ratio based on the categories of deposit. For the enterprise deposit, the required reserve ratio was 20%; for the rural deposit, the required reserve ratio was 25%; and for the saving deposit, the required reserve ratio was 40%		
1985	10%		
1987	10%	12%	2%
09/1988	12%	13%	1%
21/03/1998	13%	8%	-5%
21/11/1999	8%	6%	-2%
21/09/2003	6%	7%	1%
25/04/2004	7%	7.50%	0.50%
05/07/2006	7.50%	8%	0.50%
15/08/2006	8%	8.50%	0.50%
15/11/2006	8.50%	9%	0.50%
15/01/2007	9%	9.50%	0.50%
25/02/2007	9.50%	10%	0.50%
16/04/2007	10%	10.50%	0.50%
15/05/2007	10.50%	11%	0.50%
05/06/2007	11%	11.50%	0.50%
15/08/2007	11.50%	12%	0.50%
25/09/2007	12%	12.50%	0.50%
25/10/2007	12.50%	13%	0.50%
26/11/2007	13%	13.50%	0.50%
25/12/2007	13.50%	14.50%	1%
25/01/2008	14.50%	15%	0.50%
18/03/2008	15%	15.50%	0.50%
25/04/2008	15.50%	16%	0.50%
20/05/2008	16%	16.50%	0.50%
07/06/2008	16.50%	17.50%	1%
25/09/2008	(Large-scale Financial Institutions)17.50%	17.50%	0
	(Medium/Small-scale Financial Institutions)17.50%	16.50%	-1%
15/10/2008	(Large-scale Financial Institutions)17.50%	17.00%	-0.5%
	((Medium/Small-scale Financial Institutions)16.50%	16.00%	-0.5%
05/12/2008	(Large-scale Financial Institutions)17.50%	16.00%	-1%
	((Medium/Small-scale Financial Institutions)16.50%	14.00%	-2%

Table 4.3 (continued)

Date	Before Adjustment	After Adjustment	Range of Adjustment
25/12/2008	(Large-scale Financial Institutions)16.00%	15.50%	-0.5%
	((Medium/Small-scale Financial Institutions)14.00%	13.50%	-0.5%
12/01/2010	(Large-scale Financial Institutions)15.50%	16.00%	0.5%
	((Medium/Small-scale Financial Institutions)13.50%	13.50%	0
25/02/2010	(Large-scale Financial Institutions)16.00%	16.50%	0.5%
	((Medium/Small-scale Financial Institutions)13.50%	13.50%	0
10/05/2010	(Large-scale Financial Institutions)16.50%	17.00%	0.5%
	((Medium/Small-scale Financial Institutions)13.50%	13.50%	0
10/11/2010	(Large-scale Financial Institutions)17.00%	17.50%	0.5%
	((Medium/Small-scale Financial Institutions)13.50%	14.00%	0.5%
19/11/2010	(Large-scale Financial Institutions)17.50%	18.00%	0.5%
	((Medium/Small-scale Financial Institutions)14.00%	14.50%	0.5%
10/12/2010	(Large-scale Financial Institutions)18.00%	18.50%	0.5%
	((Medium/Small-scale Financial Institutions)14.50%	15.00%	0.5%
14/11/2011	(Large-scale Financial Institutions)18.50%	19.00%	0.5%
	((Medium/Small-scale Financial Institutions)15.00%	15.50%	0.5%

Source: The PBOC

Table 4.4 Adjustments of interest rate in China

Date	Deposit Rate			Lending Rate		
	Before Adjustment	After Adjustment	Range of Adjustment	Before Adjustment	After Adjustment	Range of Adjustment
21/02/2002	2.25%	1.98%	-0.27%	5.85%	5.31%	-0.54%
29/10/2004	1.98%	2.25%	0.27%	5.31%	5.58%	0.27%
28/04/2006	2.25%	2.25%	0.00%	5.58%	5.85%	0.27%
19/08/2006	2.25%	2.52%	0.27%	5.85%	6.12%	0.27%
18/03/2007	2.52%	2.79%	0.27%	6.12%	6.39%	0.27%
19/05/2007	2.79%	3.06%	0.27%	6.39%	6.57%	0.18%
21/07/2007	3.06%	3.33%	0.27%	6.57%	6.84%	0.27%
22/08/2007	3.33%	3.60%	0.27%	6.84%	7.02%	0.18%
15/09/2007	3.60%	3.87%	0.27%	7.02%	7.29%	0.27%
21/12/2007	3.87%	4.14%	0.27%	7.29%	7.47%	0.18%
16/09/2008	4.14%	4.14%	0.00%	7.47%	7.20%	-0.27%
09/10/2008	4.14%	3.87%	-0.27%	7.20%	6.93%	-0.27%
30/10/2008	3.87%	3.60%	-0.27%	6.93%	6.66%	-0.27%
27/11/2008	3.60%	2.52%	-1.08%	6.66%	5.58%	-1.08%
23/12/2008	2.52%	2.25%	-0.27%	5.58%	5.31%	-0.27%
20/10/2010	2.25%	2.50%	0.25%	5.31%	5.56%	0.25%
26/12/2010	2.50%	2.75%	0.25%	5.56%	5.81%	0.25%

Source: The PBOC

Panel B in Table 2 provides the descriptive statistics of bank characteristics for the sample period 2005 to 2009. The results show that for 45% (37 out of 83) of the loan sample, the bank loan announcements, including a number of loans from different banks, are made by Big Four state-owned banks. This result is less than the percentage of loans made by Big Four tate-owned banks for the sample period 1996 to 2004 (259 out of 453), implies that the dominant position of Big Four state-owned banks in China's banking industry is challenged by the joint-stock banks and foreign banks. According to China Banking Regulatory Commission 2006 Annual Report, the assets share of the state-owned commercial banks has been declining over the years, with a decrease of 2.93 percentage points from 2003 and 0.91 percentage points from 2005. Meanwhile, assets share for the joint-stock commercial banks has been rising, with an increase of 1.68 and 0.47 percentage points from 2003 and 2005, respectively. In addition, at the end of 2006, under a World Trade Organization agreement, the banking sector in China was opened to foreign banks. Assets share for the foreign banks has been rising with an increase of 1.50 and 2.11 percentage points from 2003 and 2006, respectively (China Banking Regulatory Commission 2006 Annual Report). Furthermore, 90% (9 out of 94) of loans are from state owned or controlled banks. This percentage is less than the percentage of loans from state owned or controlled banks for the sample period 1996 to 2004 (473 out of 487), implying that more non-state banks are operating in China's banking industry. Nearly, two-thirds of the loans (53 out of 85) are issued by local branches. This result is consistent with the result for the sample period 1996 to 2004 that two-thirds of the loans (278 out of 451) are issued by local branches. In addition, 72.5% (58 out of 80) of loans are made by banks that are in provinces with a higher marketization level in credit allocation. This result is more than the percentage of loans made by banks that are in provinces with a higher marketization level in credit allocation or the sample period 1996 to 2004 (320 out of 485).

Panel C in Table 4.2 summarises the borrowers' characteristics for the sample period 2005 to 2009. There are 84 borrowing firms in the full sample. Similar to the finding for the sample period 1996 to 2004, the firm size of the borrowers is smaller than the average of all listed firms for the sample period 2005 to 2009. The average total assets of the borrowers are 3485.04 million yuan, which is less than the mean (16609.26 million yuan) of the total assets of all listed firms.

Panel C of Table 4.2 also provides information about the borrowers' qualities. For example, 53 of 106 (50%) announcements are by larger borrowers; 58 of 106 (54.72%) announcements are by borrowers with a divergence between cash-flow rights and control rights; 7 of 106

(6.60%) announcements are by borrowers with negative profits in the previous year; 58 of 106 (54.72%) announcements are by borrowers whose controlling shareholder is the state or a state-related institution; 14 of 106 (13.21%) announcements are by borrowers with combined CEO-Chair structure; 11 of 106 (10.38%) announcements are from firms whose equity includes foreign-targeted B or H or N shares; and 7 of 106 (6.60%) announcements are by borrowers currently with "Special Treatment" status.

In addition, the results in Panel C in Table 4.2 show that, in terms of some expropriation-reduction mechanisms, such as borrowers' board size, borrowers' board meetings in previous announcement year and borrowers' supervisory board meetings in the previous year, the borrowers in the study sample experience a lower expropriation-problem structure than the average of all listed firms. For example, the mean of borrowers' board size is 0.99, which is slightly larger than the mean (0.96) of board size of all listed firms. The mean of the borrowers' board meetings in previous announcement year is 9.39, more than the mean (8.48) of board meetings of all listed firms. The mean of the borrowers' supervisory board meetings in the previous year is 3.99, slightly more than the mean (3.98) of supervisory board meetings of all listed firms.

However, in terms of the other expropriation-reduction mechanisms, such as the power balance in the ownership structure, the percentage of independent directors on the borrowers' board and borrowers' supervisory board size, the results in Panel C in Table 4.1 show that the borrowers experience a higher expropriation-problem structure than the average of all listed firms. For instance, the power balance in the ownership structure of the study sample is worse than the average of all listed firms. The average of the Z-Index (the total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder) is 26.87, which is larger than the mean (25.87) of the Z-Index of all listed firms. The average of CR5－CR1 (total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder) is 15.82%, which is less than the mean (16.52%) of CR5－CR1 of all listed firms. The mean of the percentage of independent directors on the borrowers' board is 35.00%, which is slightly less than the mean (35.29%) percentage of independent directors on board of all listed firms. The mean of borrowers' supervisory board size is 0.55, which is slightly smaller than the mean (0.59) of supervisory board size of all listed firms.

Finally, similar to the finding for the sample period 1996 to 2004, the largest percentage of the loan announcements granted to borrowers is in manufacturing industries (53 out of 106) for the sample period 2005 to 2009.

Panel D in Table 4.2 presents the loan characteristics for the sample period 2005 to 2009. The average loan size is 457.92 million yuan. This result is consistent with the evidence from the sample period 1996 to 2004 that only firms obtaining large loans are required to disclose bank loan announcements. The variation in the loan maturity is also moderate, with a mean maturity of 2.36 years. The range of variation in the loan interest rates is still relatively low since interest rate is still regulated by the PBOC (Feyzioglu et al., 2009). Furthermore, similar to the statistics for the sample period 1996 to 2004, most loans (97 out of 106) are made by single banks and almost two-thirds of the loans require covenants or collateral. Finally, 59 of 106 (55.66%) loans are for capital expenditure, 20 of 106 (18.87%) loans for long-term investment and 2 of 106 (1.89%) loans to repay existing debt.

4.3 Abnormal Returns around Bank Loan Announcements

4.3.1 Abnormal Returns around Bank Loan Announcements for the Sample Period 1996 to 2004

Table 4.5 provides the summary statistics on the abnormal returns around bank loan announcements and three different parametric and non parametric significance tests. For each day in the event period, the standardised abnormal returns ($\overline{SARs}$) are averaged across the 501 bank loan announcements. Based on the daily $\overline{SARs}$ throughout the event period (see Panel A in Table 4.5), there are significantly negative abnormal returns. For example, the $\overline{SAR}$ on day -1 is -0.05%, which is statistically significant at the 10% level. The $\overline{SAR}$ on day 0 and day 1 are -0.08% and -0.09% respectively and are statistically significant at the 1% level. For nearly all event windows, $CSARs$ are negative and significant (see Panel B in Table 4.5). For instance, the average $[-1, 0]$ $CSAR$ is -0.12% and the average $[0, 1]$ $CSAR$ is -0.17%, are statistically significant at the 10% and 1% level respectively. Thus, the market response for the borrowing firm's equity over several days following the bank loan announcement is typically negative. The negative market response to bank loan announcements in China supports hypothesis H1.

In addition, the average $[-10, -1]$ $CSAR$ is positive and insignificant, which implies that there is no systematic information leakage before the bank loan announcements. Therefore, this study focuses on the $CSAR$ over a two-day event window [0, 1].

Table 4.5 Abnormal returns around bank loan announcements in China from 1996 to 2004

Panel A: Average standardised abnormal return ($\overline{SAR}$)					
Event day or window (0: Announcement day)	$\overline{SAR}$	T-test	Percent of $\overline{SAR}$ greater than zero	Sign-test	Wilcoxon signed rank test
−10	−0.01%	−0.30	45.31%	−2.10**	−1.42
−9	0.08%	1.98**	49.90%	−0.04	−1.08
−8	0.01%	0.30	47.11%	−1.30	−1.29
−7	0.02%	0.51	47.40%	−1.03	−0.06
−6	−0.02%	−0.48	46.11%	−1.74*	−1.60
−5	−0.01%	−0.26	46.11%	−1.74*	−1.04
−4	0.01%	0.25	49.10%	−0.40	−0.40
−3	0.05%	1.18	46.71%	−1.47	−0.28
−2	−0.03%	−0.68	45.11%	−2.19**	−1.53
−1	−0.05%	−1.02	44.71%	−2.37**	−1.92*
0	−0.08%	−1.73*	43.91%	−2.73***	−2.24**
1	−0.09%	−2.02**	41.52%	−3.80***	−2.91***
2	−0.04%	−0.81	45.11%	−2.19**	−2.03**
3	−0.13%	−2.95***	41.52%	−3.80***	−3.04***
4	0.05%	1.15	48.50%	−0.67	−0.16
5	0.04%	0.95	50.90%	0.40	−0.24
6	−0.04%	−0.89	47.50%	−1.12	−1.23
7	−0.08%	−1.76*	47.11%	−1.30	−2.06**
8	−0.02%	−0.37	46.31%	−1.65*	−1.43
9	−0.05%	−1.22	47.31%	−1.21	−1.76*
10	−0.07%	−1.48	42.12%	−3.53***	−2.74***

Table 4.5 (continued)

Panel B: Cumulative average standardised abnormal return (*CSAR*)					
Event day or window (0: Announcement day)	$\overline{SAR}$	T-test	Percent of $\overline{SAR}$ greater than zero	Sign-test	Wilcoxon signed rank test
[−10, −1]	0.05%	1.18	50.10%	0.04	−0.18
[−1, 0]	−0.12%	−2.74***	44.51%	−2.46**	−1.77*
[0, 1]	−0.17%	−3.74***	43.51%	−2.90***	−2.68***

Note: The average standardised abnormal return ($\overline{SAR}$) and cumulative average standardised abnormal return (*CSAR*) were calculated using the market model and standard event study methodology. The estimation window for calculating the market model parameters was [−150, −31]. $\overline{SAR}$ and *CSAR* were tested for significance using a two-tail t-test. The sign test categorises data into binary outcomes with the null hypothesis that the percentage of negative $\overline{SAR}$ (*CSAR*) equals the percentage of positive $\overline{SAR}$ (*CSAR*). The Wilcoxon signed-rank test has a null hypothesis of no difference in magnitudes between the negative and positive $\overline{SAR}$ (*CSAR*). "***", "**", and "*" indicate significance at the 1, 5, and 10 percent levels, respectively. The number of observations is 501.

4.3.2 Abnormal Returns around Bank Loan Announcements for the Sample Period 2005 to 2009

Table 4.6 provides the summary statistics on the abnormal returns around bank loan announcements and three different parametric and non parametric significance tests for the sample period 2005 to 2009. For each day in the event period, the standardised abnormal returns ($\overline{SARs}$) are averaged across the 106 bank loan announcements. Based on the daily $\overline{SARs}$ throughout the event period (see Table 4.6), there are no significant abnormal returns under the parametric tests (two-tail t-test) for the sample period 2005 to 2009. Furthermore, the result of the sign test shows that the percentage of $\overline{SARs}$ for each day during the event window is significantly greater than the percentage of $\overline{SARs}$ and the result of the Wilcoxon signed-rank test shows that there is a significant difference between the negative and positive $\overline{SARs}$ for each day during the event window. Thus, the market response for the borrowing firm's equity over several days following the bank loan announcement is negative, but insignificant for the sample period 2005 to 2009. This result fails to support hypothesis H1 and is inconsistent with the finding for the sample period 1996 to 2004. This implies that the Chinese stock market does not view bank loan announcements unfavourably any longer after a series of reforms in the Chinese banking system. Reforms in the Chinese banking system started in 2005 include introducing strategic investors, listing of banks' shares and restricting the share of government ownership thereby reducing government intervention in Chinese banks. Banks may have more authority and freedom to grant loans based on commercial reasons and take full advantage of their unique information to screen and monitor borrowers.

However, the result shows no significantly positive market response to bank loan announcements in the Chinese financial market although the Chinese banking system has been improved following a series of reforms. Reforms in Chinese banking system are not complete and thus the government interference in the banking system is still substantial in certain areas. For example, most Chinese banks are still controlled by the government and the government's huge percentage in banks' ownership structures makes it difficult for individuals or institutional investors to compete through Greenfield investment and direct participation in Chinese state-owned banks. Chinese banks can not reject policy loans absolutely at this stage.

Table 4.6 Abnormal returns around bank loan announcements in China from 2005 to 2009

Event day or window (0: Announcement day)	$\overline{SAR}$	T-test	Percent of $\overline{SAR}$ greater than zero	Sign-test	Wilcoxon signed rank test
−10	−0.02%	−0.24	15.89%	−7.06***	−7.46***
−9	−0.02%	−0.26	14.02%	−7.44***	−7.93***
−8	−0.02%	−0.24	14.95%	−7.25***	−7.43***
−7	−0.03%	−0.26	14.02%	−7.44***	−7.30***
−6	−0.03%	−0.28	11.22%	−8.02***	−7.89***
−5	−0.02%	−0.22	15.89%	−7.06***	−6.62***
−4	−0.03%	−0.27	17.76%	−6.67***	−6.84***
−3	−0.03%	−0.28	10.28%	−8.22***	−8.14***
−2	−0.02%	−0.24	12.15%	−7.83***	−7.43***
−1	−0.03%	−0.26	11.22%	−8.02***	−7.52***
0	−0.03%	−0.28	15.89%	−7.06***	−7.25***
1	−0.03%	−0.30	8.41%	−8.60***	−8.06***
2	−0.02%	−0.21	13.08%	−7.64***	−6.78***
3	−0.03%	−0.26	17.76%	−6.67***	−6.81***
4	−0.02%	−0.25	19.63%	−6.28***	−7.00***
5	−0.02%	−0.22	15.89%	−7.06***	−6.85***
6	−0.02%	−0.24	13.08%	−7.64***	−6.97***
7	−0.02%	−0.21	18.69%	−6.48***	−6.13***
8	−0.03%	−0.30	14.02%	−7.44***	−7.83***
9	−0.03%	−0.27	14.02%	−7.44***	−6.88***
10	−0.03%	−0.30	12.15%	−7.83***	−7.84***

Note: The average standardised abnormal return ($\overline{SAR}$) and cumulative average standardised abnormal return ($CSAR$) were calculated using the market model and standard event study methodology. The estimation window for calculating the market model parameters was [−150, −31]. $\overline{SAR}$ and $CSAR$ were tested for significance using a two-tail t-test. The sign test categorises data into binary outcomes with the null hypothesis that the percentage of negative $\overline{SAR}$ ($CSAR$) equals the percentage of positive $\overline{SAR}$ ($CSAR$). The Wilcoxon signed-rank test has a null hypothesis of no

difference in magnitudes between the negative and positive $\overline{SAR}$ ($CSAR$). "***", "**", and "*" indicate significance at the 1, 5, and 10 percent levels, respectively. The number of observations is 106.

4.4 Characterisation of the Market Response

To further examine the effects of bank and loan characteristics on the size of the market response to bank loan announcements, this study groups bank loan announcements into pairs according to bank and loan characteristics and then conducts univariate tests and multivariate cross-sectional regression analyses to test whether the abnormal returns are statistically different between the two groups in each pair. Since there is no significant effect of bank loan announcements on the borrowing firm's equity for the sample period 2005 to 2009, this study focuses only on the effects of bank, borrower and loan characteristics on the size of the market response to bank loan announcements for the sample period 1996 to 2004.

Table 4.7 reports the summary statistics on the [0, 1] cumulative average standardised abnormal returns divided by banks (Panel A), borrowers (Panel B) and loan (Panel C) characteristics for the sample period 1996 to 2004.

Panel A in Table 4.7 presents the univariate statistics on bank loan announcements by bank characteristics. The negative stock return effect is significantly stronger for loans from Big Four state banks than for loans from other banks. This result is consistent with hypothesis H2 that the negative effect of a bank loan announcement is particularly significant for loans from Big Four banks. In addition, there is a significantly positive response to the loans made by private banks, though the sample is quite small (14 out of 501). The two-day *CSAR* for loans issued by provincial level branches and headquarters is not significantly different from zero. In contrast, the negative *CSAR* is significantly greater for loans made by a bank's local branch, such as municipal or township branches below the provincial level. This result supports hypothesis H2, which predicts that local branches are more inclined to suffer intervention by the local government and suffer higher moral hazard. Lastly, loans issued by banks in the provinces with the lower marketization level in credit allocation have more negative *CSAR* than loans made by banks in provinces with higher marketization level in credit allocation. This finding is consistent with hypothesis H2, which expects that banks in provinces with lower marketization level in credit allocation are routinely under special pressure by government to supply "policy loans". Indeed, the banking system in China is still heavily interfered with significant portions of state ownership. In addition, all the banks in China have local branches throughout the country.

Table 4.7 Cumulative average standardised abnormal returns in China sorted by bank, borrower and loan characteristics from 1996 to 2004

Panel A: Sorted by bank characteristics

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Bank Type								
Big Four state banks	259	－0.20%	－3.18***	43.51%	－2.55**	－2.75***		
Other banks	194	－0.13%	－1.76*	45.88%	－0.85	－0.75	0.07%	0.45
Bank Ownership								
State owned/controlled banks	473	－0.20%	－4.44***	42.49%	－3.26***	－3.15***		
Private banks	14	0.57%	2.12**	71.43%	1.60	－1.54	0.77%	2.37**
Bank Ranking								
Loans issued by local branches	278	－0.18%	－3.08***	42.09%	－2.64***	－2.28**		
Loans issued by headquarters or main provincial branches	173	－0.12%	－1.59	48.55%	－0.38	－0.48	0.06%	0.39
Bank Location								
Bank in the province with the higher marketization level in credit allocation	320	－0.14%	－2.57**	45.00%	－1.79*	－1.97**		
Bank in the province with the lower marketization level in credit allocation	165	－0.22%	－2.82***	40.00%	－2.60***	－2.00**	0.08%	0.47

Table 4.7 (continued)

Panel B: Sorted by borrower characteristics

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Borrower Size								
Large firms	150	0.03%	0.33	46.67%	－0.81	－0.44		
Small firms	351	－0.25%	－4.69***	42.17%	－2.94***	－2.89***	0.28%	1.79*
Divergence between Cash-flow Rights and Control Rights (DCC)								
Borrowers with divergence (DCC≠0)	208	－0.23%	－3.32***	42.32%	－2.63***	－1.93*		
Borrowers without divergence (DCC=0)	293	－0.12%	－2.09**	45.19%	－1.38	－1.87*	0.11%	0.72
Borrower Performance-ROA								
With increase	158	－0.05%	－0.57	41.77%	－2.07**	－1.29		
With no increase	343	－0.22%	－4.13***	44.31%	－2.11**	－2.42**	0.18%	1.22
Borrower Performance-Tq_70								
With increase	72	－0.07%	－0.63	45.83%	－0.71	－0.55		
With no increase	429	－0.18%	－3.79***	43.12%	－2.85***	－2.70***	0.11%	0.62

Table 4.7 (continued)

Panel B: Sorted by borrower characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Borrower Performance-Tq_80								
With increase	72	－0.08%	－0.65	45.83%	－0.71	－0.58		
With no increase	429	－0.18%	－3.78***	43.12%	－2.85***	－2.69***	0.11%	0.61
Borrowers' Ownership								
Borrowers' controlling shareholder is state or state-related institutions	349	－0.22%	－4.09***	40.11%	－3.69***	－3.18***		
Borrowers' controlling shareholder is non-state or non-state-related institutions	152	－0.05%	－0.60	51.32%	0.32	－0.00	0.17%	1.15
The Power Balance in Borrowers' Ownership Structure-Z-Index								
Above median	248	－0.25%	－3.99***	38.30%	－3.68***	－3.20***		
Equal to median	8	－0.05%	－0.15	37.50%	－0.71	－0.42		
Below median	245	－0.08%	－1.31	48.98%	－0.32	－0.54		

Table 4.7 (continued)

Panel B: Sorted by borrower characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
The Power Balance in Borrowers' Ownership Structure-CR5－CR1								
Above median	250	－0.10%	－1.59	49.60%	－0.13	－0.39		
Equal to median	1	－0.30%	－0.30	0.00%	0	0		
Below median	250	－0.23%	－3.69***	37.20%	－4.04***	－3.45***		
Borrowers' Board Size								
Large board (Above median)	165	－0.09%	－1.21	41.81%	－2.10**	－1.80*		
Equal to Median	163	－0.17%	－2.17**	47.24%	－0.70	－0.76		
Small board (Below median)	173	－0.23%	－3.07***	41.62%	－2.20**	－2.08**		
The Composition of Borrowers' Board-The Percentage of Independent Directors on the Borrowers' Board								
Above median	184	－0.09%	－1.21	45.45%	－1.31	－1.85*		
Equal to median	21	－0.19%	－0.87	57.14%	0.65	－0.36		
Below median	188	－0.29%	－4.01***	41.46%	－2.44**	－2.00**		

Table 4.7 (continued)

Panel B: Sorted on Borrower Characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Borrowers' CEO and Board Chairman Duality								
With combined CEO-Chair structure	70	－0.22%	－1.83*	44.29%	－0.96	－1.17		
With separating CEO-Chair structure	431	－0.16%	－3.30***	43.39%	－2.75***	－2.41**	0.06%	0.31
The Number of Borrowers' Board Meetings in the Previous Announcement Year								
Above median	223	－0.12%	－1.80*	47.98%	－0.60	－0.68		
Equal to median	57	－0.32%	－2.40**	40.35%	－1.46	－1.64		
Below median	221	－0.17%	－2.61***	39.82%	－3.03***	－2.51**		
Borrowers' Supervisory Board Size								
Large supervisory board (Above median)	219	－0.03%	－0.48	47.95%	－0.61	－0.40		
Equal to median	279	－0.27%	－4.46***	40.50%	－3.17***	－2.78***		
Small supervisory board (Below median)	3	－0.70%	－1.22	0.00%	－1.73*	－1.60		

Table 4.7 (continued)

Panel B: Sorted by borrower characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
The Number of Borrowers' Supervisory Board Meetings in the Previous Announcement Year								
Above median	228	－0.11%	－1.68*	42.98%	－2.12**	－1.52		
Equal to median	146	－0.24%	－2.89***	46.58%	－0.83	－1.77*		
Below median	127	－0.18%	－3.11***	44.39%	－2.17**	－2.31**		
Offshore Shares-BHN								
With B shares or H shares or N shares	20	0.84%	3.74***	50.00%	0.00	1.05		
Without B shares or H shares or N shares	481	－0.21%	－4.58***	43.24%	－2.96***	－3.00***	1.04%	1.70*
Special Treatment Status (ST)								
Borrowers under ST status	112	－0.14%	－1.50	44.64%	－1.13	－0.73		
Borrowers not under ST status	389	－0.17%	－3.44***	43.19%	－2.69***	－2.63***	0.03%	0.16

Table 4.7 (continued)

Panel B: Sorted by borrower characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Borrower Industry								
Borrowers from construction industry	9	－0.58%	－1.75*	44.44%	－0.33	－0.89		
Borrowers from farming, forestry, animal husbandry and fishery industry	6	－0.20%	－0.50	33.33%	－0.82	－0.73		
Borrowers from information technology industry	40	0.15%	0.92	47.50%	－0.32	－0.52		
Borrowers from integrated industry	52	－0.36%	－2.60***	46.15%	－0.55	－0.97		
Borrowers from manufacturing industry	203	0.01%	0.16	43.84%	－1.75*	－0.71		
Borrowers from mining and quarrying industry	4	0.35%	0.71	50.00%	0	－0.37		
Borrowers from production of supply of power, gas and water industry	28	－0.45%	－2.40**	42.86%	－0.76	－1.21		
Borrowers from real estate industry	81	－0.34%	－3.04***	48.15%	－0.33	－1.52		
Borrowers from social services industry	19	－0.22%	－0.95	36.84%	－1.15	－1.45		
Borrowers from transmitting & culture industry	8	－0.81%	－2.27**	25.00%	－1.41	－1.82*		
Borrowers from transportation, storage industry	32	－0.55%	－3.13***	21.88%	－3.18***	－2.39**		
Borrowers from wholesale and retail trades industry	19	0.02%	0.08	57.89%	0.69	0.40		

Table 4.7 (continued)

Panel C: Sorted by loan characteristics

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Loan Size								
Above median	244	－0.18%	－2.76***	42.62%	－2.30**	－1.93*		
Below median	244	－0.12%	－1.94*	45.49%	－1.41	－1.33	0.06%	0.35
Maturity								
One year or shorter	375	－0.22%	－4.30***	42.67%	－2.84***	－2.88***		
Longer than one year	84	0.89%	0.81	51.19%	0.22	－0.40	1.11%	1.50
Covenants/collateral								
With covenants/collateral	294	－0.18%	－3.01***	44.22%	－1.98**	－2.07**		
Without covenants/collateral	196	－0.15%	－2.09**	42.35%	－2.14**	－1.63	0.03%	0.18
Syndication								
Non-syndicated loans	496	－0.18%	－3.90***	43.54%	－2.87***	－2.75***		
Syndicated loans	5	0.61%	1.36	40.00%	－0.44	－0.27	0.79%	1.12

Table 4.7 (continued)

Panel C: Sorted by loan characteristics (continued)

Category	No. of obs.	*CSAR* [0, 1]	T-test of *CSAR*=0	% *CSAR* positive	Sign test	Wilcoxon signed rank test	*CSAR* difference (higher－lower)	t-test of mean difference
Purpose								
For capital expenditure	313	－0.15%	－2.65***	43.77%	－2.30**	－1.99**		
For long term investment	64	－0.01%	－0.04	45.31%	－0.75	－0.64		
For repaying old debts	15	－0.58%	－2.24**	20.00%	－2.32**	－2.33**		
No specific purpose	109	－0.26%	－2.67***	44.95%	－1.05	－1.12		

Note: Table 4.7 reports the [0, 1] cumulative average standardised abnormal returns (*CSAR*) around bank loan announcements by sub-samples with parametric and nonparametric significance tests. The sign test has a null hypothesis that the percentage of negative $\overline{SAR}$ (*CSAR*) equals the percentage of positive $\overline{SAR}$ (*CSAR*). The Wilcoxon signed-rank test has a null hypothesis of no difference in magnitude between the negative and positive $\overline{SAR}$ (*CSAR*). ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively. In some sorts, lack of data leaves the total number of observations below 501.

Sorting the bank loan announcements by borrower characteristics also yields some interesting results, as shown in Panel B in Table 4.7. The market response to a bank loan announcement is significantly negative for smaller firms. In contrast, there is no significant abnormal return for larger firms. This result supports hypothesis H3, which predicts that information opaqueness will be more pronounced in smaller firms. To identify the relationship between potential expropriation problems and the magnitude of the negative market response to bank loan announcement, this study divides the sample into borrowers with a high possibility of expropriation or tunnelling and borrowers with low possibility of expropriation or tunnelling. The result indicates that the negative market response to bank loan announcements is significantly stronger for borrowing firms with a divergence between cash-flow rights and control rights than for borrowing firms without such a divergence. In addition, results from the firms based on borrower performance (ROA and Tobin's Q) show that the negative market reaction to bank loan announcements is stronger if the performance has deteriorated in the announcement year. This study also finds that the negative reaction to bank loan announcements is stronger for borrowing firms controlled by the state or state-related institutions than for borrowing firms controlled by non-state or non-state-related institutions. These findings are consistent with hypothesis H3, which hypothesises that the market has a negative view on the loans to borrowing firms with higher possibility of expropriation or tunnelling.

Further sorting the bank loan announcements by borrower characteristics, the negative *CSAR* is significantly larger for borrowing firms with lower power balance in ownership structure (higher Z-Index and lower CR5－CR1) than those with higher power balance in their ownership structure (lower Z-Index and higher CR5－CR1).

Panel B in Table 4.7 also shows that the negative stock return effect of a loan announcement is significantly greater for borrowers with a lower percentage of independent directors[26] on the board; fewer board meetings in the previous year; smaller supervisory board size and fewer supervisory board meetings in the previous year than those with a higher percentage of independent directors on the board; more board meetings in the previous year; a larger supervisory board size and more supervisory board meetings in the previous year. In addition, it is notable that 20 bank loan announcements from borrowing firms issuing offshore shares such as B shares or H shares or N shares, display significantly positive abnormal returns, whereas bank loan announcements from borrowing firms without offshore shares generate

[26] The independent directors' data is available only from 2002 since CSRC required listed firms to establish a system of independent directors from 2001 (Ho, 2003; Wang & Deng, 2006).

significantly negative abnormal returns. Collectively, these findings are consistent with hypothesis H3, which hypothesises that loans to poorly-governed borrowing firms are not favoured by the stock market.

However, there are three notable findings from the data. First, the negative reaction to bank loan announcements is stronger for smaller borrowers' board size than for larger borrowers' board size, which implies that the larger boards are perceived to be more effective in helping to reduce expropriation problems. Perhaps the increasing number of board members in Chinese listed firms could improve the board's efficiency since the directors come from more diverse backgrounds and have different interests. Secondly, there is a significantly negative market response for both borrowing firms with combined CEO-Chair structure and borrowing firms with separate CEO-Chair structure, which implies that a separate CEO-Chair structure in Chinese listed firms has no effect in mitigating expropriation problems. This is possible because there is no conflict of interest between the CEO and chairman and both are almost exclusively insiders in Chinese listed firms. Thirdly, the market response to the 112 bank loan announcements from borrowing firms under ST status is statistically insignificant. Insiders in an ST firm have a strong incentive to improve performance and rid themselves of the ST label since the firm will be delisted if its performance does not improve in the two years following ST designation. In the interim, insiders have to reduce their tunnelling behaviour temporarily to avoid the pressing risk of delisting.

This study also shows a significantly negative market response to bank loan announcements for borrowers from the construction, integrated, production of supply of power, gas and water, real estate, transmitting & culture, and transportation and storage industries (6 out of 12 industries exhibit significant market response). However, the market response to bank loan announcements for borrowers from other industries is not significant. This finding supports hypothesis H6, which hypothesises a significant difference in market response to bank loan announcements between different industries.

This study also sorts the bank loan announcement data by loan characteristics. The results are reported in Panel C in Table 4.7. The negative effect of bank loan announcements is more pronounced the larger the loan size. This result is consistent with hypothesis H4, which hypothesises that the market may not favour larger loans since the loans may be used to prop up troubled borrowing firms in a banking environment in which non-commercial motivations are common. In addition, the negative *CSAR* is significantly larger for loans with shorter maturity (one year or less) than those with longer maturity. Non-syndicated loans have more negative *CSAR* than syndicated loans. These findings support hypothesis H4. Furthermore,

there are significantly negative reactions for loans with covenants/collateral and loans without covenants/collateral. Loans with covenants/collateral have slightly more negative effect than those without covenants/collateral. These results are consistent with hypothesis H4. Indeed, very few Chinese listed firms are liquidated due to the support from the government. Thus, equity investors in China may not favour loans with covenants/collateral. An alternative explanation to the significantly negative reactions for loans with covenants/collateral could be that they reduce the flexibility of the borrower.

Finally, this study also shows a significantly negative market response for loans used for capital expenditure, repaying old debts and no specific purpose, whereas loans for long term investment[27] display a non-significant market reaction. This finding supports hypothesis H5, which hypothesises a significant difference in market response to loan announcements for different loan purposes. Perhaps the loans used for capital expenditure, repaying old debt and no specific purpose are perceived as being easily misused by insiders and, therefore, the market does not like those loans.

Overall, the results in Table 4.7 suggest that bank, borrower and loan characteristics influence the magnitude of the negative market response to bank loan announcements, and empirically validate the hypotheses developed.

4.5 Multivariate Cross-sectional Analysis

Cross-sectional regression was used to explain the market response to bank loan announcements. Since there is no significant market response to bank loan announcements for the sample period 2005 to 2009, this study focuses only on the effects of bank, borrower and loan characteristics on the size of the market response to bank loan announcements for the sample period 1996 to 2004. The dependent variable is the cumulative average standardised abnormal return for the two-day event window [0, 1] (CSAR [0, 1]).

A number of independent variables were selected to proxy for bank, borrower and loan characteristics. Bank characteristics include a dummy variable indicating whether the lender is one of Big Four state banks (BIG4_BANK); a dummy variable indicating whether the lender is one of the state owned or controlled banks (BANK_OWNERSHIP); a dummy variable indicating whether a loan is issued by a bank's local branch below the provincial level (BANK_RANKING); a dummy variable indicating whether the lender is one of the banks in the province with a lower marketization level in credit allocation (BANK_LOCATION).

[27] The long term investment in this study refers investment in specific project more than one-year.

The borrower characteristics include the borrowers' information opaqueness (BORROWER_SIZE), the divergence between cash-flow rights and control rights (DCC), the difference in profitability (ROA and Tobin's Q taking into account of illiquidity discounts of 70%) between the year before the bank loan announcement and bank loan announcement year (DROA; DTq_70), the expropriation-reduction mechanisms (Z-INDEX, CR5 − CR1, BOARD_SIZE, BOARD_COMPOSITION, DUALITY, BOARD_MEETING, SB_SIZE, SB_MEETING and BHN) and the borrowers' financial situation (ST). BORROWER_OWNERSHIP is a dummy variable that takes a value of 1 if borrower's controlling shareholder is the state or state-related institution.

The loan characteristics include the loan size (LOAN_SIZE), loan maturity (LOAN_MATURITY), and a dummy variable indicating whether the loan is issued by a single bank (SYNDICATION), and a dummy variable indicating whether the loan required covenants or collateral (COVENANTS/COLLATERAL).

This study also adds categorical variables defined as N-1 dummy variables (N=number for the category) to proxy for borrowers' industry, loan purpose and bank loan announcement year. The dummy variables (INDUSTRY_1, INDUSTRY_2, INDUSTRY_3, INDUSTRY_4, INDUSTRY_5, INDUSTRY_6, INDUSTRY_7, INDUSTRY_8, INDUSTRY_9, INDUSTRY_10, and INDUSTRY_11) indicate: (1) the borrower is in construction industry, (2) the borrower is in farming, forestry, animal husbandry and fishery industry, (3) the borrower is in information technology industry, (4) the borrower is in integrated industry, (5) the borrower is in manufacturing industry, (6) the borrower is in production of supply of power, gas and water industry, (7) the borrower is in real estate industry, (8) the borrower is in social services industry, (9) the borrower is in transmitting, culture industry, (10) the borrower is in transportation, storage industry, and (11) the borrower is in wholesale and retail trades industry. The dummy variables PURPOSE_CAPITAL, PURPOSE_REPAY and PURPOSE_NO indicate: (1) the loan is for capital expenditure, (2) the loan is for repaying old debts; and (3) the loan has no specific purpose, respectively. The dummy variables YEAR_1; YEAR_2; YEAR_3; YEAR_4; YEAR_5; YEAR_6; and YEAR_7 indicate the bank loan announcement year is 1998 to 2004 respectively.

Table 4.8 presents the cross-sectional regression results for the sample period 1996 to 2004. Model 1 includes all the independent variables except the BOARD_COMPOSITION since the independent directors' data are available only from 2002. Model 2 includes the BOARD_COMPOSITION while controlling for the sample period from 2002 to 2004.

The correlation matrix in Appendix D shows the correlation between the variables used to proxy for bank characteristics and the SYNDICATION can not be computed. This is because the bank characteristics of a bank loan announcement can be identified only if the loan is a non-syndication loan. Thus, the variables that were used to proxy bank characteristics and the dummy variable for SYNDICATION can not be included in a model at the same time since the dummy variable for SYNDICATION is a constant and needs to be removed if the model includes variables that were used to proxy for bank characteristics. Both Model 1 and Model 2 exclude the dummy variable for SYNDICATION. Model 3 adds the dummy variable for SYNDICATION but excludes four variables that were used to proxy for bank characteristics and the BOARD_COMPOSITION. Model 4 adds the BOARD_COMPOSITION while controlling for the sample period from 2002 to 2004.

Models 1 and 3 show that BIG4_BANK, BANK_RANKING, BANK_LOCATION, DROA, DTq_70, Z-INDEX, CR5 − CR1, BOARD_SIZE, DUALITY, BOARD_MEETING, SB_SIZE, SB_MEETING, ST, INDUSTRY_1, INDUSTRY_2, INDUSTRY_3, INDUSTRY_4, INDUSTRY_5, INDUSTRY_6, INDUSTRY_7, INDUSTRY_8, INDUSTRY_9, INDUSTRY_10, INDUSTRY_11, LOAN_SIZE, SYNDICATION, COVENANTS/COLLATERAL, PURPOSE_CAPITAL, PURPOSE_REPAY, PURPOSE_NO, YEAR_1, YEAR_2, YEAR_3, YEAR_4, YEAR_5, YEAR_6 and YEAR_7 do not explain the cumulative average standardised abnormal returns around bank loan announcements during the whole sample period from 1996 to 2004. In addition, the VIF values for these variables and the correlation matrix in Appendix D show that these variables may lead to multicollinearity. Model 5 excludes these variables to avoid the multicollinearity problem.

Models 2 and 4 show that BIG4_BANK, BANK_RANKING, BANK_LOCATION, BANK_OWNERSHIP, Z-INDEX, CR5−CR1, BOARD_SIZE, BOARD_COMPOSITION, DUALITY, SB_SIZE, SB_MEETING, BHN, INDUSTRY_1, INDUSTRY_2, INDUSTRY_3, INDUSTRY_4, INDUSTRY_5, INDUSTRY_6, INDUSTRY_7, INDUSTRY_8, INDUSTRY_9, INDUSTRY_10, INDUSTRY_11, LOAN_SIZE, LOAN_MATURITY, SYNDICATION, COVENANTS/COLLATERAL, PURPOSE_CAPITAL, PURPOSE_REPAY, PURPOSE_NO, YEAR_1, YEAR_2, YEAR_3, YEAR_4, YEAR_5, YEAR_6 and YEAR_7 do not explain the cumulative average standardised abnormal returns around bank loan announcements for the sample period from 2002 to 2004. In addition, the VIF values for these variables and the correlation matrix in Appendix D show that these

variables may lead to multicollinearity. Model 6 excludes these variables to avoid the multicollinearity problem.

Model 5 shows the coefficients for BANK_OWNERSHIP, BORROWER_SIZE, DCC, BORROWER_OWNERSHIP, BHN and LOAN_MATURITY significantly explain cumulative average standardised abnormal returns around bank loan announcements during the whole sample period from 1996 to 2004. Model 6 shows the coefficients for DCC, DROA, DTq_70, BORROWER_OWNERSHIP, BOARD_MEETING and ST significantly explain cumulative average standardised abnormal returns around bank loan announcements for the sample period from 2002 to 2004. Thus, combining Model 5 and 6, Model 7 uses BANK_OWNERSHIP, BORROWER_SIZE, DCC, DROA, DTq_70, BORROWER_OWNERSHIP, BOARD_MEETING, BHN, ST and LOAN_MATURITY to proxy for bank, borrower and loan characteristics to explain the market response to bank loan announcements for the whole sample period from 1996 to 2004.

The data in Table 4.8 show the dummy for one of the state owned or controlled banks (BANK_OWNERSHIP) is significantly negative in Models 1, 5 and 7. This result is consistent with the evidence in Panel A in Table 4.7 and implies that the state owned or controlled banks are inclined to be under control from central and local government to issue a large number of policy loans with low operational efficiency to avert unemployment and potential instability in the country.

In Models 3, 4, 5 and 7, smaller borrowing firms are likely to have a more negative [0, 1] *CSAR* than larger firms. In non-government controlled banking systems, a larger positive market response to bank loan announcements for smaller borrowers implies that they indeed gain greater benefit from bank screening and monitoring services than larger borrowing firms. This is because larger borrowing firms are more likely to be monitored by analysts, bond rating agencies and the financial press and hence have less informational opaqueness. However, the market response to bank loan announcements is negative in China (see Table 4.3), and the positive regression slope on BORROWER_SIZE implies that the negative bank loan announcement effect is weakened for larger borrowing firms. This is consistent with the finding in Panel B in Table 4.7 and suggests that smaller firms in China typically face more information asymmetry and thus have a larger informational content in bank loan announcements.

Table 4.8 Cross-section regression models explaining cumulative average standardised abnormal returns around bank loan announcements from 1996 to 2004

Model 1						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	0.206	2.321	0.089	0.920		
BIG4_BANK	−0.082	0.196	−0.417	0.670	0.718	1.393
BANK_OWNERSHIP	−0.915	0.512	−1.789*	0.078	0.875	1.143
BANK_RANKING	0.221	0.198	1.112	0.286	0.739	1.354
BANK_LOCATION	0.016	0.199	0.081	0.920	0.770	1.298
BORROWER_SIZE	0.331	0.226	1.469	0.251	0.688	1.453
DCC	−1.942	0.785	−2.475**	0.014	0.743	1.346
DROA	0.339	0.372	0.912	0.365	0.810	1.235
DTq_70	0.092	0.083	1.111	0.264	0.717	1.394
BORROWER_OWNERSHIP	−0.521	0.231	−2.253**	0.024	0.591	1.692
Z-INDEX	0.000	0.001	0.128	0.899	0.675	1.481
CR5−CR1	0.355	0.788	0.450	0.691	0.559	1.790
BOARD_SIZE	0.823	0.931	0.884	0.385	0.657	1.523
BOARD_COMPOSITION						
DUALITY	0.291	0.272	1.068	0.306	0.809	1.237
BOARD_MEETING	0.035	0.023	1.519	0.131	0.665	1.505
SB_SIZE	0.338	0.892	0.380	0.644	0.563	1.776
SB_MEETING	0.058	0.057	1.024	0.306	0.692	1.445
BHN	0.764	0.498	1.533	0.124	0.795	1.258
ST	−0.006	0.215	−0.027	0.994	0.803	1.246
INDUSTRY_1	−1.041	1.150	−0.905	0.371	0.257	3.890
INDUSTRY_2	−0.716	1.567	−0.457	0.683	0.546	1.832
INDUSTRY_3	−0.118	1.031	−0.114	0.926	0.083	12.055
INDUSTRY_4	−0.880	1.004	−0.876	0.392	0.068	14.788
INDUSTRY_5	−0.495	0.986	−0.502	0.621	0.030	33.631
INDUSTRY_6	−1.049	1.045	−1.004	0.327	0.113	8.873
INDUSTRY_7	−0.822	0.997	−0.824	0.421	0.049	20.490
INDUSTRY_8	−0.779	1.089	−0.716	0.486	0.166	6.006
INDUSTRY_9	−0.930	1.174	−0.792	0.434	0.281	3.554
INDUSTRY_10	−0.841	1.032	−0.815	0.428	0.093	10.738
INDUSTRY_11	−0.395	1.074	−0.368	0.736	0.135	7.428
LOAN_SIZE	0.299	0.623	0.481	0.672	0.826	1.211
LOAN _MATURITY	0.121	0.075	1.627	0.101	0.576	1.737
SYDICATION						
COVENANTS/COLLATERAL	−0.131	0.199	−0.660	0.491	0.730	1.370
PURPOSE_CAPITAL	−0.102	0.322	−0.317	0.713	0.277	3.612
PURPOSE_REPAY	−0.771	0.572	−1.348	0.167	0.700	1.429
PURPOSE_NO	−0.300	0.354	−0.848	0.374	0.307	3.257
YEAR_1						
YEAR_2	−0.162	1.837	−0.088	0.936	0.115	8.711
YEAR_3	−0.533	1.759	−0.303	0.760	0.053	18.876
YEAR_4	0.040	1.739	0.023	0.990	0.018	56.127
YEAR_5	−0.095	1.735	−0.055	0.946	0.011	88.000
YEAR_6	−0.494	1.740	−0.284	0.768	0.011	88.495
YEAR_7	−0.426	1.733	−0.246	0.795	0.012	82.377
Observations	394					
Adjusted R-squared	0.018					

Table 4.8 (continued)

Model 2						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	−0.332	1.702	−0.195	0.845		
BIG4_BANK	0.104	0.222	0.466	0.641	0.708	1.413
BANK_OWNERSHIP	−0.846	0.570	−1.483	0.139	0.858	1.166
BANK_RANKING	0.268	0.234	1.144	0.254	0.707	1.414
BANK_LOCATION	−0.108	0.232	−0.467	0.641	0.743	1.345
BORROWER_SIZE	0.334	0.268	1.248	0.213	0.709	1.410
DCC	−1.886	0.914	−2.062**	0.040	0.740	1.351
DROA	0.753	0.407	1.852*	0.065	0.704	1.420
DTq_70	0.241	0.131	1.839*	0.067	0.648	1.543
BORROWER_OWNERSHIP	−0.651	0.263	−2.479**	0.014	0.565	1.770
Z-INDEX	0.000	0.001	−0.002	0.998	0.625	1.599
CR5−CR1	−0.043	0.965	−0.044	0.965	0.519	1.926
BOARD_SIZE	1.627	1.129	1.442	0.151	0.590	1.694
BOARD_COMPOSITION	0.237	1.394	0.170	0.865	0.234	4.279
DUALITY	0.258	0.311	0.830	0.408	0.838	1.193
BOARD_MEETING	0.050	0.026	1.931*	0.055	0.662	1.510
SB_SIZE	−0.069	1.068	−0.065	0.948	0.508	1.967
SB_MEETING	0.045	0.062	0.722	0.471	0.725	1.380
BHN	0.323	0.563	0.574	0.567	0.738	1.354
ST	−0.452	0.258	−1.750*	0.081	0.732	1.366
INDUSTRY_1	−0.927	1.216	−0.762	0.446	0.310	3.225
INDUSTRY_2	−1.543	2.016	−0.765	0.445	0.666	1.501
INDUSTRY_3	−0.003	1.067	−0.003	0.998	0.100	10.048
INDUSTRY_4	−0.744	1.033	−0.720	0.472	0.084	11.960
INDUSTRY_5	−0.221	1.012	−0.218	0.827	0.037	26.956
INDUSTRY_6	−0.658	1.069	−0.615	0.539	0.111	9.018
INDUSTRY_7	−0.752	1.027	−0.732	0.465	0.059	16.918
INDUSTRY_8	−0.464	1.163	−0.399	0.690	0.206	4.848
INDUSTRY_9	−0.630	1.205	−0.523	0.602	0.272	3.679
INDUSTRY_10	−0.269	1.074	−0.250	0.803	0.114	8.736
INDUSTRY_11	−0.267	1.113	−0.240	0.811	0.136	7.375
LOAN_SIZE	0.525	0.862	0.609	0.543	0.752	1.329
LOAN _MATURITY	0.064	0.086	0.739	0.461	0.625	1.599
SYDICATION						
COVENANTS/COLLATERAL	−0.179	0.232	−0.771	0.441	0.694	1.440
PURPOSE_CAPITAL	0.077	0.362	0.214	0.831	0.280	3.576
PURPOSE_REPAY	−0.976	0.613	−1.592	0.113	0.678	1.476
PURPOSE_NO	−0.132	0.393	−0.337	0.737	0.316	3.162
YEAR_1						
YEAR_2						
YEAR_3						
YEAR_4						
YEAR_5						
YEAR_6	−0.465	0.379	−1.226	0.221	0.267	3.743
YEAR_7	−0.359	0.471	−0.762	0.446	0.182	5.485
Observations			311			
Adjusted R-squared			0.004			

Table 4.8 (continued)

Model 3						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	0.560	2.091	0.268	0.789		
BIG4_BANK						
BANK_OWNERSHIP						
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE	0.448	0.200	2.240**	0.026	0.721	1.387
DCC	−2.137	0.743	−2.877***	0.004	0.743	1.346
DROA	0.366	0.365	1.002	0.317	0.833	1.201
DTq_70	0.106	0.080	1.321	0.187	0.705	1.419
BORROWER_OWNERSHIP	−0.440	0.216	−2.041**	0.042	0.607	1.648
Z-INDEX	0.000	0.001	0.347	0.729	0.681	1.469
CR5−CR1	0.485	0.732	0.663	0.508	0.575	1.740
BOARD_SIZE	0.629	0.860	0.731	0.465	0.658	1.520
BOARD_COMPOSITION						
DUALITY	0.258	0.246	1.046	0.296	0.843	1.186
BOARD_MEETING	0.032	0.022	1.461	0.145	0.678	1.474
SB_SIZE	−0.198	0.795	−0.249	0.804	0.625	1.601
SB_MEETING	0.055	0.053	1.035	0.301	0.705	1.418
BHN	0.949	0.456	2.081**	0.038	0.703	1.423
ST	−0.014	0.206	−0.070	0.944	0.793	1.262
INDUSTRY_1	−1.322	1.033	−1.281	0.201	0.317	3.150
INDUSTRY_2	−1.330	1.214	−1.095	0.274	0.455	2.198
INDUSTRY_3	−0.279	0.897	−0.311	0.756	0.097	10.269
INDUSTRY_4	−0.931	0.874	−1.065	0.287	0.086	11.628
INDUSTRY_5	−0.602	0.849	−0.709	0.478	0.034	29.048
INDUSTRY_6	−1.115	0.908	−1.228	0.220	0.137	7.323
INDUSTRY_7	−1.020	0.866	−1.117	0.240	0.057	17.436
INDUSTRY_8	−0.863	0.947	−0.911	0.363	0.192	5.205
INDUSTRY_9	−1.120	1.027	−1.090	0.276	0.321	3.115
INDUSTRY_10	−0.903	0.904	−0.998	0.319	0.116	8.609
INDUSTRY_11	−0.726	0.942	−0.770	0.441	0.165	6.071
LOAN_SIZE	0.355	0.608	0.584	0.560	0.842	1.188
LOAN _MATURITY	0.135	0.065	2.067**	0.039	0.631	1.584
SYDICATION	1.183	1.000	1.183	0.238	0.538	1.860
COVENANTS/COLLATERAL	0.068	0.180	0.378	0.705	0.765	1.307
PURPOSE_CAPITAL	0.062	0.303	0.205	0.837	0.282	3.540
PURPOSE_REPAY	−0.729	0.526	−1.386	0.166	0.708	1.412
PURPOSE_NO	−0.094	0.332	−0.285	0.776	0.318	3.141
YEAR_1	−2.743	2.102	−1.305	0.193	0.302	3.306
YEAR_2	−2.473	1.954	−1.266	0.206	0.089	11.278
YEAR_3	−2.710	1.937	−1.399	0.163	0.039	25.671
YEAR_4	−1.989	1.921	−1.036	0.301	0.013	76.097
YEAR_5	−2.153	1.912	−1.126	0.261	0.008	120.063
YEAR_6	−2.516	1.912	−1.316	0.189	0.008	123.215
YEAR_7	−2.402	1.916	−1.254	0.211	0.009	115.194
Observations	448					
Adjusted R-squared	0.031					

Table 4.8 (continued)

Model 4						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	−0.916	1.965	−0.466	0.641		
BIG4_BANK						
BANK_OWNERSHIP						
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE	0.430	0.237	1.814*	0.071	0.733	1.364
DCC	−2.173	0.868	−2.503**	0.013	0.748	1.337
DROA	0.710	0.399	1.781*	0.076	0.740	1.351
DTq_70	0.252	0.126	1.996**	0.047	0.657	1.521
BORROWER_OWNERSHIP	−0.554	0.244	−2.267**	0.024	0.602	1.661
Z-INDEX	0.000	0.001	0.256	0.798	0.652	1.534
CR5−CR1	0.189	0.895	0.211	0.833	0.540	1.852
BOARD_SIZE	1.458	1.041	1.401	0.162	0.619	1.614
BOARD_COMPOSITION	0.399	1.322	0.302	0.763	0.234	4.268
DUALITY	0.244	0.287	0.849	0.397	0.864	1.157
BOARD_MEETING	0.044	0.025	1.776*	0.077	0.690	1.450
SB_SIZE	−0.829	0.953	−0.870	0.385	0.575	1.738
SB_MEETING	0.062	0.058	1.078	0.282	0.759	1.317
BHN	0.625	0.519	1.205	0.229	0.710	1.409
ST	−0.389	0.248	−1.571	0.117	0.735	1.361
INDUSTRY_1	−1.415	1.109	−1.275	0.203	0.378	2.647
INDUSTRY_2	−1.862	1.362	−1.367	0.173	0.497	2.012
INDUSTRY_3	−0.333	0.939	−0.354	0.723	0.121	8.298
INDUSTRY_4	−0.967	0.907	−1.066	0.287	0.106	9.455
INDUSTRY_5	−0.541	0.875	−0.618	0.537	0.043	23.248
INDUSTRY_6	−0.974	0.936	−1.040	0.299	0.135	7.421
INDUSTRY_7	−1.129	0.900	−1.254	0.211	0.069	14.536
INDUSTRY_8	−0.675	1.009	−0.669	0.504	0.232	4.305
INDUSTRY_9	−1.052	1.065	−0.988	0.324	0.309	3.235
INDUSTRY_10	−0.516	0.953	−0.541	0.589	0.146	6.834
INDUSTRY_11	−0.802	0.986	−0.813	0.417	0.165	6.062
LOAN_SIZE	0.525	0.835	0.629	0.530	0.785	1.274
LOAN _MATURITY	0.121	0.078	1.551	0.122	0.697	1.434
SYDICATION	0.288	1.321	0.218	0.827	0.790	1.265
COVENANTS/COLLATERAL	−0.005	0.210	−0.023	0.981	0.730	1.370
PURPOSE_CAPITAL	0.291	0.342	0.851	0.396	0.287	3.487
PURPOSE_REPAY	−0.811	0.564	−1.437	0.152	0.688	1.454
PURPOSE_NO	0.121	0.370	0.326	0.745	0.333	3.007
YEAR_1						
YEAR_2						
YEAR_3						
YEAR_4						
YEAR_5						
YEAR_6	−0.476	0.355	−1.341	0.181	0.270	3.704
YEAR_7	−0.352	0.444	−0.792	0.429	0.182	5.483
Observations			354			
Adjusted R-squared			0.020			

Table 4.8 (continued)

Model 5						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	0.704	0.481	1.462	0.144		
BIG4_BANK						
BANK_OWNERSHIP	−0.780	0.454	−1.717*	0.087	0.996	1.004
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE	0.389	0.173	2.255**	0.025	0.965	1.036
DCC	−2.238	0.679	−3.295***	0.001	0.864	1.158
DROA						
DTq_70						
BORROWER_OWNERSHIP	−0.373	0.179	−2.079**	0.038	0.859	1.164
Z-INDEX						
CR5−CR1						
BOARD_SIZE						
BOARD_COMPOSITION						
DUALITY						
BOARD_MEETING						
SB_SIZE						
SB_MEETING						
BHN	1.046	0.425	2.459**	0.014	0.989	1.012
ST						
INDUSTRY_1						
INDUSTRY_2						
INDUSTRY_3						
INDUSTRY_4						
INDUSTRY_5						
INDUSTRY_6						
INDUSTRY_7						
INDUSTRY_8						
INDUSTRY_9						
INDUSTRY_10						
INDUSTRY_11						
LOAN_SIZE						
LOAN _MATURITY	0.105	0.054	1.920*	0.055	0.964	1.037
SYDICATION						
COVENANTS/COLLATERAL						
PURPOSE_CAPITAL						
PURPOSE_REPAY						
PURPOSE_NO						
YEAR_1						
YEAR_2						
YEAR_3						
YEAR_4						
YEAR_5						
YEAR_6						
YEAR_7						
Observations	448					
Adjusted R-squared	0.054					

Table 4.8 (continued)

Model 6						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	0.207	0.324	0.638	0.524		
BIG4_BANK						
BANK_OWNERSHIP						
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE	0.245	0.190	1.293	0.197	0.938	1.066
DCC	−1.921	0.770	−2.496**	0.013	0.857	1.166
DROA	0.654	0.364	1.795*	0.073	0.809	1.237
DTq_70	0.179	0.106	1.689*	0.092	0.850	1.176
BORROWER_OWNERSHIP	−0.371	0.192	−1.932*	0.054	0.827	1.209
Z-INDEX						
CR5−CR1						
BOARD_SIZE						
BOARD_COMPOSITION						
DUALITY						
BOARD_MEETING	0.035	0.020	1.751*	0.081	0.920	1.087
SB_SIZE						
SB_MEETING						
BHN						
ST	−0.357	0.207	−1.727*	0.085	0.918	1.089
INDUSTRY_1						
INDUSTRY_2						
INDUSTRY_3						
INDUSTRY_4						
INDUSTRY_5						
INDUSTRY_6						
INDUSTRY_7						
INDUSTRY_8						
INDUSTRY_9						
INDUSTRY_10						
INDUSTRY_11						
LOAN_SIZE						
LOAN _MATURITY						
SYDICATION						
COVENANTS/COLLATERAL						
PURPOSE_CAPITAL						
PURPOSE_REPAY						
PURPOSE_NO						
YEAR_1						
YEAR_2						
YEAR_3						
YEAR_4						
YEAR_5						
YEAR_6						
YEAR_7						
Observations	393					
Adjusted R-squared	0.028					

Table 4.8 (continued)

Model 7						
					Collinearity Statistics	
Variables	**Coefficient**	**Std Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
INTERCEPT	0.496	0.544	0.912	0.362		
BIG4_BANK						
BANK_OWNERSHIP	−0.753	0.456	−1.651*	0.099	0.992	1.008
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE	0.398	0.176	2.257**	0.025	0.928	1.078
DCC	−2.254	0.682	−3.307***	0.001	0.862	1.160
DROA	0.238	0.348	0.683	0.495	0.901	1.110
DTq_70	0.04	0.069	0.062	0.951	0.927	1.079
BORROWER_OWNERSHIP	−0.341	0.184	−1.854*	0.064	0.820	1.220
Z-INDEX						
CR5−CR1						
BOARD_SIZE						
BOARD_COMPOSITION						
DUALITY						
BOARD_MEETING	0.023	0.019	1.247	0.213	0.886	1.129
SB_SIZE						
SB_MEETING						
BHN	0.956	0.432	2.213**	0.027	0.963	1.038
ST	−0.068	0.186	−0.365	0.715	0.945	1.058
INDUSTRY_1						
INDUSTRY_2						
INDUSTRY_3						
INDUSTRY_4						
INDUSTRY_5						
INDUSTRY_6						
INDUSTRY_7						
INDUSTRY_8						
INDUSTRY_9						
INDUSTRY_10						
INDUSTRY_11						
LOAN_SIZE						
LOAN _MATURITY	0.116	0.056	2.706***	0.038	0.927	1.079
SYDICATION						
COVENANTS/COLLATERAL						
PURPOSE_CAPITAL						
PURPOSE_REPAY						
PURPOSE_NO						
YEAR_1						
YEAR_2						
YEAR_3						
YEAR_4						
YEAR_5						
YEAR_6						
YEAR_7						
Observations	448					
Adjusted R-squared	0.050					

The coefficient for DCC (the divergence between cash-flow rights and control rights) is significant and negative in all regression models. The result is robust when other explanatory variables are included in the regressions. The finding indicates that borrowing firms with a greater divergence in voting and cash-flow rights of the ultimate controlling shareholder yield greater negative market reaction when bank loans are announced. This result supports hypothesis H3 that the market reacts unfavourably when bank loans are announced by borrowing firms with a higher divergence between the voting and cash-flow rights of their ultimate controlling shareholder. Since the divergence in voting and cash-flow rights of the ultimate controlling shareholder reflects the possibility of the borrowers' expropriation problem, this result implies that equity investors may realise controlling shareholders have the incentives (small cash-flow rights) and ability (sufficient voting rights) to abuse their power and misuse funds from banks to seek their private benefit at the expense of minority shareholders and creditors. The coefficients for DROA and DTq_70 are significantly positive in Models 2, 4 and 6. The results suggest that the negative effect of a bank loan announcement is stronger for borrowing firms with poorer performance in the announcement year. These results are consistent with those in Panel B in Table 4.7, which implies that the negative stock return effect of a loan announcement is significantly greater for borrowing firms with higher probability of expropriation problem. However, the coefficients for DROA and DTq_70 are significant only when controlling for the sample period from 2002 to 2004. Perhaps equity investors may gradually realise the decrease in the firm's performance as a signal of the expropriation problem.

The coefficient for BORROWER_OWNERSHIP is significant and negative in Models 1, 5 and 7. This result suggests that the negative effect of a bank loan announcement is stronger for borrowing firms controlled by the state or state-related institutions than those controlled by the non-state or non-state-related institutions. This finding is consistent with the argument that firms with a larger concentration of state ownership tend to have a higher possibility of the expropriation problem.

The coefficient for BOARD_MEETING is significantly positive in Models 2, 4 and 6. These results suggest that the negative effect of a bank loan announcement is stronger for borrowing firms with fewer board meetings in the previous year. This is consistent with the results in Panel B in Table 4.7, which suggests that the negative stock return effect of a bank loan announcement is significantly greater for borrowing firms that have ineffective expropriation-reduction mechanisms. However, the coefficient for BOARD_MEETING is significant only

when controlling for the sample period from 2002 to 2004. Perhaps the increasing frequency of board meetings gradually could improve a board's efficiency.

In Models 3, 5, and 7, the borrowing firms with offshore shares such as B shares or H shares or N shares tend to have a less negative [0, 1] *CSAR* than those without offshore shares. This is consistent with the evidence in Panel B in Table 4.3 and suggests that firms that have issued offshore shares draw the attention of foreign investors and face better monitoring, and hence reduce the expropriation problem.

The dummy variable for financially distressed borrowing firms (ST) is significant and negative in Models 2 and 6. This is inconsistent with the results in Panel B in Table 4.7. However, the coefficient for ST is significant only when controlling for the sample period from 2002 to 2004. This result implies that, for the whole sample period, equity investors may favour loans for financially distressed borrowing firms since they may realise that insiders in an ST firm have to reduce their tunnelling behaviour temporarily to avoid the pressing risk of delisting. However, for the sample period from 2002 to 2004, equity investors may not favour loans for troubled borrowers.

Furthermore, loan maturity carries a significantly positive coefficient in Models 3, 5 and 7. It is expected that short-term loans generate a greater positive bank loan announcement effect than long-term loans in non-government-controlled banking systems since banks' monitoring powers would be increasing with more frequent renewals. However, banks' monitoring function is weakened in China due to intervention of the government, so the positive slope on LOAN_MATURITY simply implies that the equity investors recognise that short-term loans may not be employed as one of complementary monitoring mechanisms by banks in China. In fact, some Chinese listed companies use short-term loans to fund long-term assets (Bailey et al., 2010). This behaviour leads to a stronger negative bank loan announcement effect following loans with shorter maturities than those with longer maturities. This result is consistent with the evidence in Panel C in Table 4.7.

The R squared values are relatively low in all models because the dependent variable and independent variables are derived from different fields. The dependent variable is stock data and most independent variables are accounting data.

4.6 Chapter Summary

This chapter presents the empirical results based on a sample of 501 bank loan announcements in the Chinese financial market from 1996 to 2004 and a sample of 106 bank

loan announcements from 2005 to 2009. In contrast to what previous studies have found for bank loan announcements in non-government-controlled banking systems, the results show that the Chinese financial market typically reacts unfavourably to bank loan announcements for the sample period 1996 to 2004. Further, using bank loan announcements from 2005 to 2009, there is no significant market response to bank loan announcements in the Chinese financial market.

When the negative bank loan announcement effects for the sample period 1996 to 2004 are broken down by bank characteristics, this study finds that the negative bank loan announcement effects are particularly significant for loans from Big Four state banks, loans from state owned or controlled banks, loans from banks with lower ranking and loans from banks in provinces with lower marketization level in credit allocation.

When the negative bank loan announcement effects are sorted on borrower characteristics, this study finds that the negative bank loan announcement effects are strengthened for problematic borrowing firms including firms that are opaque, have a higher possibility of expropriation or tunnelling, have ineffective expropriation-reduction mechanisms, are controlled by the state and are in financial distress.

This study also finds that the negative bank loan announcement effects are particularly significant for loans of a greater amount, with a shorter term, with covenants/collateral, and less syndication. Furthermore, this study shows there is a significant difference in the market response to bank loan announcements among different loan purposes, and among different industries.

The multivariate cross-sectional regression analysis confirms the study's hypotheses (see Section 4.4 and Table 4.8). The coefficients for BANK_OWNERSHIP, BORROWER_SIZE, DCC, DROA, DTq_70, BORROWER_OWNERSHIP, BORAD_MEETING, BHN, ST and LOAN_MATURITY are statistically significant. This suggests that the negative market response to bank loan announcements is partially explained by these variables in the Chinese financial market.

The findings for the sample period 1996 to 2004 support our prior hypotheses H1, H2, H3, H4, H5 and H6. For example, there is a negative relationship between bank loan announcements and abnormal returns in the Chinese financial market. The negative effect of a bank loan announcement is particularly significant for loans from Big Four state banks, state owned or controlled banks, banks with lower ranking and banks in provinces with lower marketization level in credit allocation; for problematic borrowing firms including firms that are opaque,

have a higher possibility of expropriation or tunnelling, have ineffective expropriation-reduction mechanisms, are controlled by the state and are in financial distress; for loans with greater amount, shorter term, with covenant/collateral, and less syndication. Furthermore, there is a significant difference in market response to bank loan announcements among different bank loan purposes and among different industries. The findings for the sample period 2005 to 2009 fails to support hypothesis H1 and is inconsistent with the finding that there is a significantly negative market response to bank loan announcements in the Chinese financial market for the sample period 1996 to 2004. This implies that reforms in the Chinese banking system which started in 2005 may have reduced government interventions in the banks. Chinese banks, thus, may have more authority and freedom to grant loans based on commercial reasons and take full advantage of their unique information to screen and monitor borrowers. Therefore, the Chinese stock market does not view bank loan announcements unfavourably any longer.

Chapter 5
Summary and Conclusions

5.1 Introduction

This chapter summarises the study and draws conclusions regarding the market response to bank loan announcements in the Chinese financial market. Section 5.2 briefly reviews the study. Section 5.3 discusses the empirical results and the implications drawn from the findings. Section 5.4 discusses the policy implications of the research findings. Limitations of the study are discussed in Section 5.5. Section 5.6 provides some suggestions for future research. Finally, Section 5.5 concludes the study.

5.2 Study Overview

The literature has enhanced our understanding of the market response to bank loan announcements in non-government-controlled banking systems, but it is unclear how the market response to bank loan annoucements impacts government-controlled banking systems. The issue of the market response to bank loan announcements in government-controlled banking systems has not been adequately addressed in the literature. This thesis examines the market response to bank loan announcements in the China's banking system, which is government controlled.

A sample of bank loan announcements was obtained from the CSMAR® China Listed Firms' Bank Loans Research Database for the period 1996 through 2009. The share-split reform started in 2005 which affected the stock price of listed Chinese companies considerably. In order to avoid the influence of the share-split reform, this study divides the sample period into two sub-samples, namely, 1996 to 2004 and 2005-2009. The standard event study methodology was used to examine the market response to bank loan announcements in the Chinese financial market. The market model was used to calculate abnormal returns. The expected returns of client borrowing firms were calculated based on the market model parameters estimated over a 120-day estimation window, $t = -150$ to $t = -31$ before the announcement date. The 21-day (day −10 to day 10) event window is defined as the period covering 10 days before the bank loan announcement date ($t = 0$), the day bank loan was announced, and the following 10 days after the bank loan announcement date. Abnormal returns were further standardised and aggregated across borrowing firms. The T-test, sign test, and Wilcoxon signed-rank test were conducted based on the standardised abnormal returns.

The sample of bank loan announcements for the sample period 1996 to 2004 was sorted according to bank, borrower and loan characteristics. The [0, 1] *CSAR* was calculated for each subgroup and then the statistical significance for each [0, 1] *CSAR* determined.

Bank, borrower and loan characteristics were then combined and used as independent variables in a number of multivariate cross-sectional regressions to test the relative explanatory powers of each bank, borrower and loan characteristic on the [0, 1] *CSAR* for the sample period 1996 to 2004.

5.3 Result Discussions and Implications

A detailed analysis of the empirical results is presented in Chapter 4. This section reviews the empirical findings and compares the results with the findings documented in previous studies. The implications of the empirical results are then discussed.

5.3.1 Results for Research Objective One and their Implications

This study tests the market response to bank loan announcements in the Chinese financial market and the empirical results show that the borrowers' stock value reacts negatively to a bank loan announcement for the sample period 1996 to 2004. This result is consistent with Bailey et al. (2010) and Shen et al. (2007), but inconsistent with previous studies in non-government-controlled banking systems that show bank loan announcements produce significantly positive abnormal returns.

In non-government-controlled banking systems, such as the U.S., Canada, the U.K., Australia, New Zealand, Japan, Hong Kong, South Korea, and Thailand, banks issue loans only to creditworthy borrowers, and the approval of a bank loan is considered by the stock market as a good signal. In a government-controlled banking system, government owned or controlled banks may grant loans both for commercial and political reasons. Banks may be obliged to lend money to some listed firms in order to avoid unemployment or social instability, regardless of whether these firms are healthy or distressed (Dinc, 2003; Faccio, 2006; Khwaja & Mian, 2005). If these weak borrowers are prevalent, the market response should be negative, and the converse (Bailey et al., 2010).

The empirical results of this study show that, under the pressure from the government management, Chinese banks assume a large amount of policy lending to avert unemployment and potential instability in the country. The effectiveness of bank monitoring in China is constrained by government intervention.

In addition, the empirical results imply that poorly-performing borrowers are prevalent in China. With a policy of lending by state owned or controlled banks, where Chinese listed companies face soft budget constraints, both healthy and distressed borrowers are able to obtain bank loans relying on the government for refinancing. Chinese listed firms may be subject to inefficient management and expropriation problems by controlling shareholders since there are no pressures to improve the performance of listed firms.

However, the empirical result shows that the market response for the borrowing firm's equity over several days following the bank loan announcement is negative, but insignificant for the sample period 2005 to 2009. This result is inconsistent with the finding that the Chinese stock market views bank loan announcements unfavourably for the sample period 1996 to 2004. This implies that the Chinese stock market does not view bank loan announcements unfavourably any longer for the sample period 2005 to 2009. This may be because a series of reforms have taken place in the Chinese banking system since 2005, and it is plausible that government interventions in Chinese banks have been reduced since then.

5.3.2 Results for Research Objective Two and their Implications

Research objective two of this study examines how bank, borrower and loan characteristics may influence the share price reaction to bank loan announcements in the Chinese financial market.

5.3.2.1 Effects of Bank Characteristics

The empirical results show that the negative effect of bank loan announcements according to bank characteristics is particularly significant when loans are granted by state owned or controlled banks especially Big Four banks, banks with lower ranking and banks in provinces with lower marketization level in credit allocation for the sample period 1996 to 2004. These results are consistent with Bailey et al.'s (2010) and Gao et al.'s (2006) findings, which show that the negative market response to bank loan announcement is prevalent if the lending bank is under strong political interference and suffers from greater pressure to issue loans for non value-maximizing purposes.

Banks in China are generally under government pressure to supply "policy loans". Loans from banks with higher government ownership and stronger political interference transmit a negative signal. Big Four banks in China are subject to more political interference and assume more policy loans over other domestic banks. Chinese banks with lower ranking (local branches) may be influenced by local government and pressured to issue loans to pursue the political interests of the local government (Bailey et al., 2010). Banks in a province with a

lower marketization level in credit allocation suffer from stronger interference by the local government since the marketization level in credit allocation differs in different provinces in China (Fan & Wang, 2001; Fan et al., 2002, 2004, 2007; Gao et al., 2006). Therefore, the negative market response to bank loan announcements is significantly larger if the lending bank is state owned or controlled banks especially Big Four banks, banks with lower ranking and banks in provinces with lower marketization level in credit allocation.

5.3.2.2 Effects of Borrower Characteristics

Dividing the bank loan announcement effect by typical borrower characteristics, the results show that the negative effect of bank loan announcements is particularly significant for borrowing firms that are opaque for the sample period 1996 to 2004. This is consistent with Aintablian and Roberts' (2000), Bailey et al.'s (2010), Fama's (1985) and Slovin et al.'s (1992) argument that large firms are transparent and hence there is smaller information content in bank loan announcements. The result also reveals that large firms are generally well monitored and have acquired a reputation since more information is available about them in the capital market in both non-government-controlled banking systems and government-controlled banking systems. Therefore, bank loan announcements do not provide much new information to investors. On the other hand, small firms suffer from more severe moral hazard and adverse selection problems because they typically have shorter corporate histories, less public information is available for investors and poorer reputations. Thus, the negative news of a bank loan announcement elicits a more pronounced decrease in share value in small firms than in large firms.

The empirical results also show that there is no significant response for borrowing firms in financial distress for the sample period 1996 to 2004. This is consistent with Bailey et al.'s (2010) finding. Bailey et al. (2010) explain that firms in financial distress may have been created by the Chinese government and hence there is little informational value in additional bank loan announcements. Furthermore, the result indicates that insiders in a ST firm have a strong incentive to improve performance and rid themselves of the ST label since the firm will be delisted if its performance does not improve in the two years following ST designation. In the interim, insiders have to reduce their tunnelling behaviour temporarily to avoid the pressing risk of delisting. However, the result contradicts Bolton and Freixas' (2000), Chemmanur and Fulghieri's (1994) and James' (1996) argument that the bank loan announcement effect is greater for borrowing firms with a higher possibility of financial distress in non-government-controlled banking systems. This is because banks generate

information and a monitoring function in non-government-controlled banking systems. Banks' willingness to restructure conveys a good signal of firm prospects.

Furthermore, the empirical results show that there is a significant difference in the market response to bank loan announcements between different industries in the Chinese financial market for the sample period 1996 to 2004. This finding is consistent with Bailey et al. (2010) and Brumm (1996). This implies that the industry to which a borrowing firm belongs is an important characteristic that can affect the magnitude of the bank loan announcement effect in both non-government-controlled banking systems and government-controlled banking systems.

5.3.2.3 Effects of Loan Characteristics

Dividing the bank loan announcement effect by loan characteristics, the empirical results show that the negative effect of a bank loan announcement is particularly significant for loans of greater size for the sample period 1996 to 2004. This is consistent with Easterwood and Kadapakkam's (1991), Kang and Liu's (2008), Krishnaswami et al.'s (1999) argument that there is larger information content in bank loan announcements for loans of larger size than those with smaller size, but contradicts Lummer and McConnell's (1989) argument that there is no significant difference in the excess returns between large and small sized announced loans. This finding implies that markets in non-government-controlled banking systems may favour larger loans since banks may spend more effort in evaluating and monitoring when issuing larger loans, whereas markets in government-controlled banking systems such as China may not favour larger loans since the loans may be used to help troubled borrowing firms. In a government-controlled banking system like China's, approval of a loan may be perceived by the Chinese stock market as a negative signal that the borrowing firm is in trouble and requires the loan to keep afloat (Bailey et al., 2010). Thus, a larger loan required by a borrowing firm is perceived by the Chinese stock market as a signal that the borrowing firm is experiencing financial distress.

In addition, the result shows that the negative effect of a bank loan announcement is particularly significant for loans with a shorter maturity for the sample period 1996 to 2004. This is consistent with Bailey et al. (2010), but inconsistent with Diamond's (1991a, 1993), Fama's (1985) and Flannery's (1986) argument that the market reacts favourably to shorter-term loans. This finding implies markets in non-government-controlled banking systems favour shorter-maturity bank loans, whereas markets in government-controlled banking systems such as China do not favour shorter-maturity bank loans. This is because borrowing firms are required to roll shorter-maturity bank loans over frequently. In non-government-

controlled banking systems, it is the repeated refinancing transactions with the borrowers that make banks continuously re-evaluate the borrowing companies, thereby strengthening the banks' unique ability to assess inside information and monitor the loans effectively. However, in government-controlled banking systems such as China, the complementary monitoring functions of shorter-maturity bank loans cannot be implemented since the bank monitoring function is not efficient. Furthermore, many Chinese listed firms use short-term loans to fund long-term assets (Bailey et al., 2010).

The results also show that the negative effect of a bank loan announcement is particularly significant for loans with covenants/collateral for the sample period 1996 to 2004. This finding is consistent with Demiroglu and James' (2007), James and Smith's (2000), Park's (2000) and Rajan and Winton's (1995) argument that there is larger information content in bank loan announcements for loans with covenants/collateral. This implies markets in non-government-controlled banking systems favour bank loans with covenants/collateral, whereas markets in government-controlled banking systems such as China do not favour bank loans with covenants/collateral. This is because, in non-government-controlled banking systems, the presence of debt with covenants/collateral increases the banks' incentive to monitor by increasing the sensitivity of a lenders' return to information or by decreasing the banks' payoff if it does not monitor. However, in government-controlled banking systems such as China, the complementary monitoring functions of covenants/collateral cannot be implemented since the bank monitoring function is not efficient. Indeed, many controlling shareholders in Chinese listed firms expropriate minority shareholders through loan guarantees to related parties (Berkman, Cole & Fu, 2009).

The negative effect of a bank loan announcement is particularly significant for non-syndicated loans, signifying that the Chinese stock market does not favour non-syndicated loans for the sample period 1996 to 2004. This finding contradicts Aintablian and Roberts' (2000), Chen and Tsai's (2006), Fery et al.'s (2003) and Preece and Mullineaux's (1996) argument that markets in non-government-controlled banking systems view non-syndicated loans favourably. Preece and Mullineaux (1996) argue that the capacity to renegotiate a bank loan is relatively inexpensive in corporate restructuring and should complement monitoring as a source of value to borrowers. Consequently, as the number of lenders increases in a syndicate, contracting costs increase and the capacity to renegotiate declines. However, in government-controlled banking systems such as China, banks operate in a relatively non-competitive environment because of the dominant (albeit declining) share of state-owned banks in total lending and continuing political intervention. In addition, under soft budget constraints, it is

not costly for borrowing firms to switch banks. Thus, non-syndicated loans in China are not favoured by the stock market since Chinese listed firms do not use non-syndicated loans to enhance contractual flexibility and limit contracting costs. Furthermore, the result shows that there is no significant market response to syndicated bank loan announcements in the Chinese financial market. This result contradicts Houston and James' (1996) and Rajan's (1992) argument that multiple bank lending or syndicated loans could enhance contractual flexibility and limit hold-up problems, which result in a statistically positive relationship between the borrowers' abnormal returns and syndicate size. This may be because the sample of syndicated loans is quite small (5 out of 501) in this study.

Collectively, contrary to previous studies that show a larger positive response to bank loan announcements for loans with larger size, shorter maturity, with covenants/collateral and with less syndication in non-government-controlled banking systems, this study's results reveal there is a larger negative response to bank loan announcements for loans with larger size, shorter maturity, with covenants/collateral and with less syndication in the Chinese financial market for the sample period 1996 to 2004. These results imply that the market recognises that the complementary monitoring functions of traditional loan characteristics employed by banks in loan contracts are not efficient in China. Thus, the stock market in China does not favour bank loans with a complementary monitoring function, such as larger size, shorter maturity, with covenants/collateral and with less syndication.

Finally, the results show a significantly negative market response for loans used for capital expenditure, repaying old debts and no specific purpose, whereas loans for long term investment display a non-significant market reaction for the sample period 1996 to 2004. This finding is consistent with Bailey et al.'s (2010) study that there is a significantly negative market response for loans used to repay old loans, but fails to support Bailey et al.'s (2010) finding that there is a significantly negative market response for loans for long term investment. The inconsistent result could be due to the different criteria in classifying loan purpose. For example, this study classifies loans for long term investment according to the statements in contracts but Bailey et al. (2010) regard loans used by heavy industry as loans for long term investment. Thus the loan purpose is an important characteristic that can affect the magnitude of the bank loan announcement effect in the Chinese financial market.

Conducting several cross-sectional regression analyses, the results show that the negative market response to bank loan announcements is much stronger for loans from state owned or controlled banks, for borrowers with smaller size and for loans with shorter maturities for the sample period 1996 to 2004. These results are partly consistent with Bailey et al.'s (2010)

finding that the negative market response to bank loan announcements is much stronger for borrowers of smaller size.

5.3.3 Results for Research Objective Three and their Implications

Research objective three examines the incidence of the expropriation problem of the banking system by the controlling shareholder among companies listed on the Chinese Stock Exchange.

The empirical results show that the negative market reaction to bank loan announcements is stronger for borrowing firms with a divergence between cash-flow rights and control rights. In addition, the results show that the negative market reaction to bank loan announcements is stronger if the performance has deteriorated in the announcement year for the sample period 1996 to 2004. These results imply that the negative effect of a bank loan announcement is particularly significant for borrowing firms that have a higher possibility of expropriation or tunnelling. These findings are consistent with Bailey et al.'s (2010) and Shen et al.'s (2007) argument that the banking system is directly involved in "tunnelling", that is, controlling shareholders in listed firms may use bank loans to pursue their private benefit. In addition, the result shows that the negative reaction to bank loan announcements is stronger for borrowing firms controlled by the state or state-related institutions than for borrowing firms controlled by non-state or non-state-related institutions. This result is consistent with Bailey et al.'s (2010), Shen et al.'s (2007) and Tian's (2004) argument that borrowing firms with a larger concentration of state ownership may be subject to non value-maximising goals and signals a higher possibility of expropriation of funds.

These results imply that approval of a bank loan is perceived by the Chinese stock market as a negative signal if bank loans are associated with problematic borrowing firms. This negative market response to bank loan announcements is particularly strong for borrowing firms with a higher possibility of expropriation or tunnelling since the controlling shareholders in such borrowing firms are more likely to engage in transferring or tunnelling borrowed funds. This negative market response to bank loan announcements is also particularly strong for borrowing firms controlled by the state or state-related institutions. This is because firms controlled by the state or state-related institutions, as the main source of employment and social safety net, are more likely to be supported in the Chinese financial market whether they are healthy or distressed (Bailey et al., 2010; Brandt &Zhu, 2000; Dobson & Kashyap, 2006). Thus, borrowing firms controlled by the state or state-related institutions may pursue political objectives that are often different from profit maximisation. In addition, the expropriation

problem in borrowing firms controlled by the state or state-related institutions is likely to be more serious since such firms easily obtain bank loans given the political mandate of Chinese banks (Bailey et al., 2010). Therefore, the negative bank loan announcement effect is greater for borrowing firms controlled by the state or state-related institutions in the Chinese financial market.

In summary, the results show that the negative market response to bank loan announcements is much stronger for borrowing firms with a greater divergence in voting and cash-flow rights of the ultimate controlling shareholder, with a greater decrease in their performance in the announcement year and controlled by the state or state-related institutions for the sample period 1996 to 2004. These findings are consistent with Bailey et al. (2010) and Shen et al. (2007) who suggest that expropriation of the banking system by the controlling shareholder exists among Chinese listed firms.

5.3.4 Results for Research Objective Four and their Implications

Research objective four evaluates the influence (or effectiveness) of ownership structure and internal corporate governance mechanisms in limiting or controlling the magnitude of the expropriation problem between Chinese listed firms and banks.

The results show that the negative market reaction to bank loan announcements is stronger for borrowing firms with lower power balance in their ownership structure, lower percentage of independent directors on the borrower board, fewer borrower board meetings in the previous year, smaller supervisory board size and fewer borrower supervisory board meetings in the previous year for the sample period 1996 to 2004. In addition, the results show that the negative reaction to bank loan announcements is stronger for borrowing firms with a smaller board size for the sample period 1996 to 2004. This finding is consistent with Goodstein, Gautam and Boeker's (1994), Jensen and Murphy's (1990), Pearce and Zahra's (1992) and Pfeffer's (1973) argument that the board's capacity for monitoring increases as more directors are added since directors come from more diverse backgrounds, but contradicts Bhagat and Black's (2002), Eisenberg et al.'s (1998) and Yermack's (1996) argument that small boards of directors are more effective. The reason for such a contradiction may be that it is difficult for controlling shareholders to control the board of directors as the board size and diversity increases in Chinese listed firms.

As discussed previously, the negative market response to bank loan announcements is particularly strong for borrowing firms with a higher possibility of expropriation or tunnelling in the Chinese financial market for the sample period 1996 to 2004 since the controlling

shareholders in such borrowing firms are more likely to engage in transferring or tunnelling borrowed funds. Furthermore, the results show that the Chinese stock market appears to respond negatively to bank loan announcements for borrowing firms that are weakly governed, that is, borrowing firms that lack efficient expropriation-reduction mechanisms that could mitigate the expropriation problem of the banking system by controlling shareholders for the sample period 1996 to 2004. These findings imply that a higher power balance, a relatively larger board size, a higher percentage of independent directors on the borrower board, higher board meeting frequency, relatively larger supervisory board size and a higher supervisory board meeting frequency are more effective in controlling the magnitude of the expropriation problem between Chinese listed firms and banks.

The results also show a significantly negative market response for both borrowing firms with combined CEO-Chair structure and borrowing firms with separating CEO-Chair structure for the sample period 1996 to 2004. This finding is consistent with Gomes and Novaes' (2005) and Shi and Shitu's (2004) argument that the CEO and the chairman may be almost exclusively insiders if the ownership structure is highly concentrated. This is because the controlling shareholders typically have the ability to appoint their "own candidate" as CEO, i.e., having separate CEO-Chair structures, but both the CEO and chairman represent controlling shareholders' interests. However, the result contradicts Boyd's (1995), Brown and Caylor's (2006), Core et al.'s (1999), and Mak and Li's (2001) findings that the separation of CEO and chair positions will reduce agency costs and improve monitoring ability. The result shows that there is no significant difference in the market response for both borrowing firms with combined CEO-Chair structure and borrowing firms with separate CEO-Chair structure. This result implies that the separation of CEO and chair is not an effective mechanism in controlling the magnitude of the expropriation problem between Chinese listed firms and banks. This is because the ownership in Chinese publicly listed firms tends to be highly concentrated rather than diversified. Both CEO and the chairman are typically appointed by the controlling shareholders directly in proportion to their shareholding (Cheung et al., 2005; Ho, 2003). The CEO and the chairman may be almost exclusively insiders in Chinese listed firms. Thus, the Chinese stock market does not favour bank loans to either borrowing firms with combined CEO-Chair structure or borrowing firms with separate CEO-Chair structure.

Finally, the empirical results show that borrowing firms issuing offshore shares, such as B, H or N shares, display significantly positive abnormal returns, whereas bank loan announcements from borrowing firms without offshore shares generate significantly negative abnormal returns for the sample period 1996 to 2004. This finding is consistent with Bai et

al.'s (2004) and Bailey et al.'s (2010) argument that companies that have issued offshore shares, such as B, H or N shares, are subject to stricter legal rules and more transparent financial disclosure requirements. In addition, the monitoring systems of foreign investors are relatively more sophisticated. The empirical results show that the Chinese stock market favours bank loans to borrowing firms with offshore shares. This result implies that firms with offshore shares are generally better governed and can effectively control the magnitude of the expropriation problem between Chinese listed firms and banks.

In summary, this study found that the negative market response to bank loan announcements is much stronger for borrowing firms without offshore shares for the sample period 1996 to 2004. However, Bailey et al. (2010) find that the coefficient for offshore shares is not statistically significant in all their regressions. Bailey et al.'s (2010) finding may be due to the very small sample size, only 12 borrowing firms with offshore shares in their sample.

5.4 Policy Implication

The findings of this study have several important implications for policy-makers and regulators in China. The findings yield some suggestions for policy makers to implement reform in Chinese banking system, minimise the magnitude of the expropriation problem between Chinese listed firms and banks and improve the performance of Chinese listed firms in order to increase the efficiency of Chinese banking system.

The empirical finding shows that stock values for Chinese borrower firms typically decline significantly around bank loan announcements for the sample period 1996 to 2004. Furthermore, these negative announcement effects are heightened for loans from banks with higher government ownership and strong political interference. These findings imply that the Chinese stock market appears to free from government intervention which curtail efficiency of bank loans. This is because, with a high degree of government ownership, Chinese banks tend to pursue political objectives and can not make their decisions on commercial basis. Thus, restricting the share of government ownership is a possible solution to reduce the government intervention in Chinese banks.

However, restricting the share of government does not imply total privatisation of Chinese state owned or controlled banks. The government's huge percentage in banks' ownership structures makes it difficult for individuals or institutional investors to compete through Greenfield investment and direct participation in Chinese state-owned banks. Inviting strategic investors to participate in state-owned banks to diversify ownership and improve

management quality, turning state-owned banks into publicly listed banks and letting public to supervise these banks were some possible solutions.

Introducing strategic investors can diversify ownership structures of stated-owned banks and limit "one dominating state-owned stock monopolizes" in Chinese banking system. Under diversified ownership structure, the power of the government in Chinese banks can be diluted, and therefore the government intervention can be reduced. If Chinese banks can have autonomy to make decisions based on commercial principles, they would be able to make full use of uniquely informational advantages to solve the information asymmetry problem between banks and borrowers and monitor borrowing firms effectively. Bank loan announcements, therefore, would convey positive signal to the stock market.

However, the result shows no significantly positive market response to bank loan announcements in the Chinese financial market for the sample period 2005 to 2009 although the Chinese banking system has been improved following a series of reforms. This result implies that reforms in Chinese banking system have not been completed and thus the government interference in the banking system is still substantial in certain areas. In addition, following the subprime loan crisis, a number of overseas strategic investors have chosen to cash out their shares held in Chinese banks once they became tradable to offset their heavy losses occurred outside of China during the crisis. For example, the Royal Bank of Scotland have sold all BOC shares they held, profiting by about 800 million pounds and the UBS have sold all BOC shares they held profiting by about $335 million toward the end of 2008. Bank of America, a strategic investor in the CBC, reduced its holding and profited $ 1.1 billion. Goldman Sachs Group, Inc., a foreign strategic investor of the ICBC, sold 3.03 billion H shares of the ICBC in 2009 (CSC Staff Shanghai, 2009). At the same time, the investment of foreign banks is questionable given recent failures in the U.S. and the European banking systems. Therefore, inviting strategic investors to restrict the share of government ownership can not resolve the government interference in the Chinese banking system completely.

Financial liberalisation is another possible solution to reduce the government intervention in Chinese banking reform. Over the past few years, China has already made substantial progress in financial liberalisation, such as gradually introducing market practices into the banking system, gradually freeing interest rate and opening up to foreign competition and fully opening up at the end of 2006 (Garcia-Herrero, Gavila & Santabarbara, 2006). However, the government interference in the banking system is still substantial in certain areas. For example, most Chinese banks still do not have enough autonomy to set the price of their deposit and lending rates since reform in interest rate liberalisation has not completed.

From 1996, the PBOC started the interest rate liberalisation process (The People's Bank of China, 2005). Most of necessary steps towards interest rate liberalisation in China have been already taken (Table 5.1).

Table 5.1 Key dates in interest rate liberalization in China

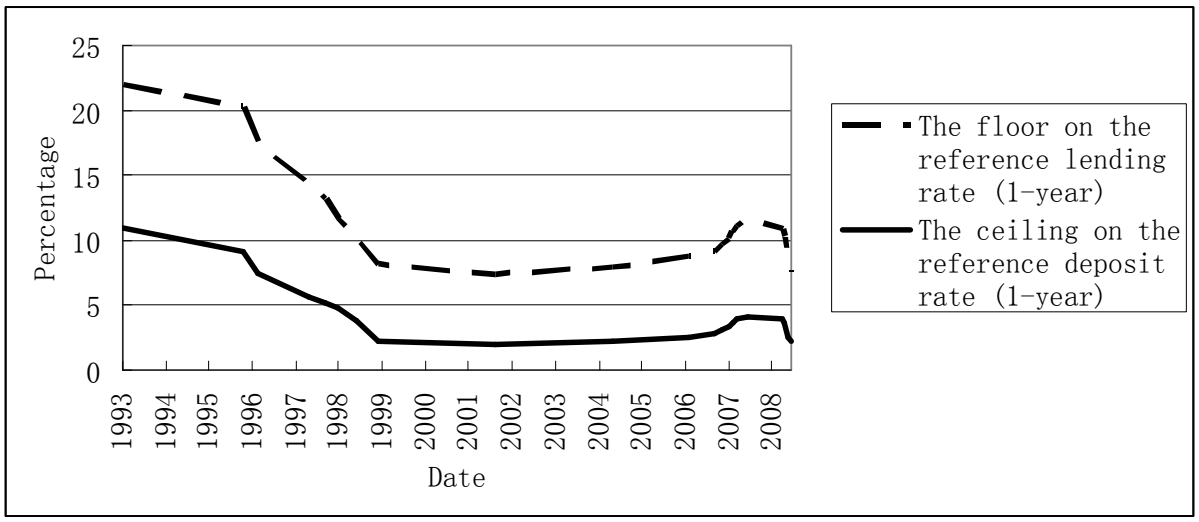
Year	Process
1996	Abolished the upper limit on interbank lending rates
1997	Liberalised repo rates
1998-2004	Gradually increased the upper limit on lending rates
1999	Begun to gradually allow different institutions to negotiate rates on over Y30 million deposits with above 5-year maturity
2000	Liberalised foreign currency lending rates
2000	Liberalised foreign currency deposit rates for deposits over $3 million
2003	Removed floor on foreign currency deposit rates
2003	Liberalised deposit rates in Pound, Franc, Swiss Franc, and Canadian Dollar
2004	Liberalised all foreign currency deposit rates with maturity above 1 year
2004	Removed ceiling on all lending rates (except for urban and rural credit cooperatives, which have a cap of 130 percent over reference rates)
2004	Removed floor on all deposit rates

Source: The People's Bank of China (2005) and Feyzioglu, Porter and Takats (2009)

After years of reform, however, progress towards interest rate deregulation has stalled with the lending rate floors and deposit rate ceilings still remain (Feyzioglu et al., 2009). The removals of the ceiling on the lending rate and the floor on the deposit rate allowed commercial banks flexibility in setting prices after October 2004 (The People's Bank of China, 2005). However, the lower limit on the lending rate restricts competition for loans and the upper limit on the deposit restricts competition for deposits. Few banks can improve the lending rate or lower the deposit rate, because, if they do so, they would lose clients. Indeed, Chinese banks are not commercial based because the price of deposit and lending is still controlled by the PBOC.

In addition, current floor on the reference lending rate and the ceiling on reference deposit can offer a safe margin for commercial banks to maintain a relatively high net interest (Figure 5.1). Therefore, as long as banks make loans, they can make profits. There is no need for most commercial banks to change their lending operations significantly. Most of lending may still be directed to SOEs, including some unprofitable SOEs, which have implicit guarantees from the government. This safe and stable interest margin set by the PBOC provides little incentive for banks to improve their efficiency in credit allocation and monitoring of the loan performance.

Figure 5.1 Reference rate on loans and deposits



Source: PBOC

Furthermore, interest rate controls limit the competition among banks. Non-state banks, particular foreign banks, can not break the market monopoly of state banks, resulting in an inefficient use of credits and serious structural imbalances in Chinese banking system. The role of foreign competition is limited even with WTO commitments. Therefore, the Chinese banking industry is still dominated by state owned or controlled bank. The government intervention in Chinese banking sector is still very large. Chinese banks may be influenced by the government and pressured to issue loans to pursue the political interests and can not make full use of their advantages in collecting information about borrowers and subsequently provide effective monitoring services. Bank loan announcements still can not transfer positive signals to the stock market.

Therefore, interest rate liberalisation is a necessary building block for China to reduce government interference and enhance the role of market forces in credit allocation. The PBOC should deregulate deposit and lending rate to allow commercial banks to decide all their commercial rates in accordance with market forces. The PBOC is advised to remove the deposit rate, lending rate and their ceiling and floor requirement, but simply set one prime rate on which commercial banks borrow for short-term liquidity.

However, when interest rate constraints are removed, competitions between banks may encourage banks to enter risky businesses and support excessive borrowing in the economy if there is no appropriate regulation and supervision (Feyzioglu et al., 2009). Therefore, CBRC should design vigilant regulatory and supervisory frameworks to keep up with the changing financial landscape and guard against the banking crisis from aggressive competition between banks. The PBOC should conduct proactive monetary policy to contain excessive lending.

Moreover, the PBOC should strengthen indirect monetary policy instruments, as direct control over interest rates and credit quantity are removed following interest rate deregulation. In summary, it is possible for China to implement interest rate deregulation to reduce the government intervention in Chinese banks. However, precautionary banking regulation, supervision and monetary policy should be taken into account to ensure risks that followed interest rate deregulation are controlled.

The results also provide broader picture of China's economy. Over the past few years, the Chinese government has frequently tried to influence bank lending decisions to favour SOEs to increase production, accelerate economic growth, and maintain employment. However, even if this administrative practice is temporarily successful, in the long run, it impedes the sustainable development of Chinese banks and enterprises. This in turn could lead to massive unemployment and social unrest as Chinese banks and enterprises collapse, thus threatening the stability in China and beyond. Therefore, China's sustainable development urgently requires reduction of massive government intervention in the Chinese banking system. However, reforms in the Chinese banking system can not be independent of the reforms in other areas such as reforms in SOEs and social welfare systems. This is because, if the banks have autonomy and incentives to make sound decisions, they would not continually subsidise poor-performing SOEs. If the SOEs do not have easy access to credits, they would either have to improve their production efficiency or declare bankrupt. Therefore, efforts should be taken by the Chinese government to help SOEs to become more efficient and independent. China has made some substantial progress in reforming SOEs. Many small SOEs have been privatised or outright shut down, while larger SOEs have downsized through shedding some surplus labour. Despite improvements in SOEs, reforms have not completed due to concerns about possible social unrest results from laid-off workers. Therefore, reforms in Chinese banking system and SOEs should be accompanied by establishing and developing functioning social welfare system to provide unemployed person with benefits, pensions, and health insurance. If the social welfare system can function well to solve possible social unrest resulting from reforms in the banking system and SOEs, the Chinese government do not need to intervene in banks' lending behaviour, and therefore, banks can have autonomy to make decisions based on commercial principles. Chinese banks can take advantage of inside information they possess to assess firms' perspectives, issue loans to borrowing firms that have bright perspectives and monitor borrowers effectively. Therefore, the Chinese stock market can have confidence in the efficiency of bank loans, and respond positively to bank loan announcements.

The research findings also can help academics, policy-makers and practitioners identify why the Chinese banking system is directly involved in expropriation by controlling shareholders among Chinese listed firms. This is because the ownership structure of China's listed firms is highly concentrated with successive layers of holding companies through parallel or pyramid structures, which results in divergence between the control rights and the cash-flow rights of controlling shareholders. The expropriation problems of the banking system by the controlling shareholder among Chinese listed firms are exacerbated when controlling shareholders are state or state-related institutions. This is because state ownership of both Chinese banks and Chinese listed firms brings about soft budget constraints, which give the controlling shareholder a free hand over a larger pool of bank loans. It is therefore important for policy-makers and regulators to make concerted efforts to minimise expropriation and achieve better corporate performance.

In order to prevent expropriation of the banking system by the controlling shareholder, Chinese authorities should consummate laws and regulations to protect the rights of the banking system. In addition, the authorities should further diversify Chinese bank ownership structure and improve the role of strategic investors in domestic banks. If the Chinese banking system is not dominated by state owned or controlled banks, banks are able to make their lending decisions based on the borrowers' profitability, not the availability of funds. At the same time, Chinese listed firms, particular SOEs, have to face hard budget constraints where controlling shareholders in Chinese listed firms cannot embezzle bank loans easily. Furthermore, Chinese banks should be given a comprehensive and legitimate set of rules by the Chinese legislature to monitor Chinese listed firms and participate in the governance of listed companies.

The results also show that expropriation in the banking system by the controlling shareholders can be mitigated by some effective mechanisms including ownership-related arrangements and corporate governance mechanism related arrangements These results suggest that efforts are needed to improve the power balance in complex ownership structures with multiple large shareholders and improve the role of the board of directors and supervisory board, such as strengthening the independence of the board, advocating the board function of strategic management to prevent manipulation by large shareholders, clearly defining the function of the supervisory board and increasing the independence of that board.

5.5 Limitations

There are several limitations to this study. First, this study suffered from sample selection bias. Chinese publicly listed firms, represent only a small proportion of China's enterprises. Only relative large and perhaps a better-performed group of enterprises can obtain approval to be listed. Chinese listed firms started more or less on an equal basis since they undertook the same corporatisation process required by CSRC (Xu & Wang, 1997, 1999). Thus, it is clear that publicly listed companies are not representative of all enterprises in China. The sample selection bias suffered by this study is unavoidable in the context of the Chinese data setting.

Secondly, there have been many studies of the market response to bank loan announcements in non-government-controlled banking systems. However, research on the market response to bank loan announcements in government-controlled banking systems, particularly in China, is still in its early stage. Only three studies were identified in the literature (see Cui & Zhao, 2004; Bailey et al., 2010; Shen et al., 2007). This restricts the number of comparisons of the empirical results in this study with existing literature. The upside, however, is that this study provides an avenue for future research.

5.6 Suggestions for Future Research

Future studies might consider mitigating the political interference in banking system and withdrawing soft budget constraints. In China, state owned or controlled banks are subject to government intervention and hence bear the burden of the "policy lending". To a certain extent, the pressure of the government makes Chinese banks operate at low efficiency, evidenced by a large proportion of NPLs or misdirected credit (Dobson & Kashyap, 2006; Leung et al. 2002; Tian, 2001b, 2004). For example, comparing China and other major Asian economies in recent years, Allen et al. (2008) show that the number of NPLs is the highest in China and the profitability of China's banking system is the lowest for the same group of countries. In addition, dual government ownership of banks and most listed companies inevitably results in soft budget constraints. Under soft budget constraints, a bank loan is indeed a catalyst for expropriation. That is, the bank loan gives the controlling shareholder a free hand over a larger pool of capital. Therefore, mitigating political interference in the banking system and withdrawing soft budget constraints are fundamental to improve allocation efficiency within China, control the magnitude of the expropriation problem between Chinese listed firms and banks and improve the performance of both Chinese banks and listed firms. Thus, approaches to mitigate political interference in the banking system and withdrawing soft budget constraints deserve future researchers' attention.

However, mitigating political interference in the banking system does not mean reducing government regulation and supervision of the banking system. Weak bank regulations may lead to a series of kickbacks. For example, the 2008 financial crisis was caused by global macro liquidity policies and a poor regulatory framework (Blundell-Wignall, Atkinson & Lee, 2008). Thus, the extent of government intervention in banks that can improve banking supervision and regulation and, at the same time, avoid excess intervention deserves future consideration.

The expropriation problem and corporate governance in Chinese listed firms will be interesting areas of research, particularly since most companies have completed the share-split reform and the non-marketable shareholdings of state-owned enterprises and other central government nominees are transformed into liquid assets. Lu, Balatbat & Czernkowski (2008) argue that the share-split reform is expected to bring substantial benefits to the development of the Chinese capital market, for example, depth in liquidity of the A-share market, uniform valuation basis of A-shares, better alignment of interests between shareholders and managers and minority interests and improvement in the companies' corporate governance structure. Therefore, the role of the share-split reform in mitigating the expropriation between Chinese listed firms and banks and improving corporate governance should be addressed in future research.

5.7 Conculsions

This study investigates the market response to bank loan announcements in the Chinese financial market. Contrary to previous studies on bank loan announcements in non-government-controlled banking systems, this study found that, using bank loan announcements from 1996 to 2004, there are significant declines in the stock values of Chinese borrowing firms at times of bank loan announcements. This is consistent with the theoretical prediction that both positive and negative bank loan announcement effects are possible, depending on whether the banking system is run on purely commercial goals in non-government-controlled banking systems or is subject to political intervention in government-controlled banking systems. In non-government-controlled banking systems, the lending practices of commercial banks are based only on commercial considerations and profit-maximising and banks do indeed play a unique role in generating information and thus reducing information asymmetries. Only creditworthy borrowing firms can obtain bank loans and bank loan announcements are favoured by the stock market. However, in government-controlled banking systems such as China, state owned or controlled banks may lend to poorly performing firms for political reasons such as avoiding unemployment and social

instability rather than economic considerations. If these weak borrowing firms are prevalent, the direction of the market response to bank loan announcements is negative and vice versa. The empirical results of this study show that under the pressure from the government management, Chinese banks still assume a large amount of policy lending to avert unemployment and potential social instability in the country. The effectiveness of the monitoring role of banks in China is also lessened by government intervention. In addition, poorly-performing borrowers are prevalent in China.

The negative effect is particularly significant for loans from Big Four state banks, state owned or controlled banks, banks with lower ranking and banks in provinces with lower marketization level in credit allocation for the sample period 1996 to 2004. These findings imply that banks in China are generally under political interference and pressure to issue loans for non value-maximising purposes. Loans from banks with the higher state ownership and stronger political interference transmit negative signals.

The negative effect is particularly significant for problematic borrowing firms including firms that are opaque, have a higher possibility of expropriation or tunnelling, have ineffective expropriation-reduction mechanisms, are controlled by the state and are in financial distress for the sample period 1996 to 2004. These findings imply that approval of a bank loan is perceived by the Chinese stock market as a particularity negative signal if the borrowing firm measures poorly on quality and creditworthiness.

The negative effect is also particularly significant for loans of a greater amount, shorter term, with covenants/collateral and less syndication for the sample period 1996 to 2004. These findings imply that, in government-controlled banking systems such as China, the complementary monitoring functions of loan characteristics in loan contracts, such as greater amount, shorter term, with covenants/collateral and less syndication cannot be effectively implemented since the bank monitoring function is inadequate and inefficient.

This study also finds that there is a significant difference in the market response to bank loan announcements among different industries and different loan purposes for the sample period 1996 to 2004. This implies that the industry to which a borrowing firm belongs and the loan purpose are important characteristics that can affect the magnitude of the bank loan announcement effect in both non-government-controlled banking systems and government-controlled banking systems.

However, using bank loan announcements from 2005 to 2009, the significantly negative market response to bank loan announcements in the Chinese financial market for the sample

period 1996 to 2004 disappears. This implies that the government intervention in China's banks may be reduced following a series of reforms that started in 2005. Chinese banks, thus, may have more autonomy to grant loans according to market criteria. As the Chinese banking system improves further, the unfavourable view of the Chinese stock market on bank loan announcements should disappear eventually.

References

Almanac of China's Finance and Banking. (1995). Beijing: Almanac of China's Finance and Banking Editorial Board.

Almanac of China's Finance and Banking. (2003). Beijing: Almanac of China's Finance and Banking Editorial Board.

China Banking Regulatory Commission Annual Report. (2007). Beijing: China Banking Regulatory Commission.

China Corporate Governance Report. (2003). Shanghai: Shanghai Stock Exchange Research Centre. (In Chinese)

Acharya, S. (1988). A generalized econometric model and tests of a signaling hypothesis with two discrete signals. *Journal of Finance, 43*(2), 413-429.

Acharya, S. (1993). Value of latent information: alternative event study methods. *Journal of Finance, 48*(1), 363-385.

Agrawal, A., & Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial & Quantitative Analysis, 31*(3), 377-397.

Aintablian, S., & Roberts, G. S. (2000). A note on market response to corporate loan announcements in Canada. *Journal of Banking & Finance, 24*(3), 381-393.

Allen, F., Qian, J., & Qian, M. (2005a). Law, finance, and economic growth in China. *Journal of Financial Economics, 77*(1), 57-116.

Allen, F., Qian, J., & Qian, M. (2005b). Will China's financial system stimulate or impede the growth of its economy. *Asia Program Special Report No. 129: China's Economy Retrospect*, 33-41.

Allen, F., Qian, J., & Qian, M. (2008). China's financial system: past, present, and future. In T. Rawski & L. Brandt (Eds.), *China's Great Economic Transformation*. Cambridge: Cambridge University Press.

Almazan, A., & Suarez, J. (2003). Managerial compensation and the market reaction to bank loans. *The Review of Financial Studies, 16*(1), 237-261.

Altunbas, Y., Evans, L., & Molyneux., P. (2001). Bank ownership and efficiency. *Journal of Money, Credit, and Banking, 33*(4), 926-954.

Amit, A. R., Brander, J., & Zott, C. (1997). Venture capital financing of entrepreneurship in Canada. In P. Halpern (Ed.), *Financing Growth in Canada*. Calgary: University of Calgary Press.

André, P., Mathieu, R., & Zhang, P. (2001). A note on capital adequacy and the information content of term loans and lines of credit. *Journal of Banking & Finance, 25*(2), 431-444.

Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance, 55*(1), 81-106.

Arbel, A., Carvell, S., & Strebel, P. (1983). Giraffes, institutions and neglected firms. *Financial Analysts Journal, 39*(3), 57-63.

Armitage, S. (1995a). Event study methods and evidence on their performance. *Journal of Economic Surveys, 9*(1), 25-52.

Armitage, S. (1995b). Banks' information about borrowers: the stock market response to syndicated loan announcements in the UK. *Applied Financial Economics, 5*(6), 449-459.

Atanasov, V. A., Black, B. S., & Ciccotello, C. S. (2008). Unbundling and measuring tunnelling. *University of Texas Law, Law and Economics Research Paper No. 117; ECGI-Finance Working Paper*; McCombs Research Paper Series, Forthcoming. *Available at SSRN: http://ssrn.com/abstract=1030529*

Atiase, R. K. (1985). Predisclosure information, firm capitalization, and security price behaviour around earnings announcements. *Journal of Accounting Research, 23*(1), 21-36.

Bai, C.-E., Liu, Q., Lu, J., Song, F. M., & Zhang, J. (2004). Corporate governance and market valuation in China. *Journal of Comparative Economics, 32*(4), 599-616.

Bailey, W. B., Huang, W., & Yang, Z. (2010). Bank loans with Chinese characteristics: Inside debt, firm quality, and market response. *Journal of Financial and Quantitative Analysis, Forthcoming.*

Bank of America Roundtable (1997). The link between capital structure and shareholder value. Pebble Beach, California. *Journal of Applied Corporate Finance, 10*(2), 40-67.

Barca, F. (1995). *On corporate governance in Italy: Issues, facts, and agency*. Unpublished manuscript, Bank of Italy, Rome.

Barca, F., & Becht, M. (2001). *The control of corporate Europe*. Oxford: Oxford University Press.

Barth, J. R., Caprio, G. J., & Levine, R. (2001). Banking systems around the globe: Do regulation and ownership affect performance and stability. In F. S. Mishkin (Ed.), *Prudential Supervision: What Works and What Doesn't* (pp. 31-88). Chicago: University of Chicago Press.

Barth, J. R., Caprio, G. J., & Levine, R. (2003). The regulation and supervision of banks around the world: A new database. In R. E. Litan & R. Herring (Eds.), *Brookings-Wharton Papers on Financial Services* (pp. 183-250). Washington, DC: Brookings Institution Press.

Barth, J. R., Caprio, G. J., & Levine, R. (2004). Bank regulation and supervision: what works best? *Journal of Financial Intermediation, 13*(2), 205-248.

Basu, A. K., Lal, R., Srinivasan, V., & Staelin, R. (1985). Salesforce compensation plans: an agency theoretic perspective. *Marketing Science, 4*(4), 267-291.

Bebchuk, L. A., Kraakman, R., & Triantis, G. G. (2000). Stock pyramids, cross-ownership, and dual class equity: the creation and agency costs of separating control from cash flow rights. In R. Morck (Ed.), *Concentrated Corporate Ownership, NBER Conference Report Series*. Chicago, IL: University of Chicago Press.

Bennedsen, M., & Wolfenzon, D. (2000). The balance of power in closely held corporations. *Journal of Financial Economics, 58*(1-2), 113-139.

Benston, G. J., & Smith, J. C. W. (1976). A transactions cost approach to the theory of financial intermediation. *Journal of Finance, 31*(2), 215-231.

Berger, A. N., Clarke, G. R. G., Cull, R., Klapper, L., & Udell, G. F. (2005). Corporate governance and bank performance: a joint analysis of the static, selection, and dynamic effects of domestic, foreign, and state ownership. *Journal of Banking & Finance, 29*(8-9), 2179-2221.

Berger, A. N., Hasan, I., & Klapper, L. F. (2004). Further evidence on the link between finance and growth: an international analysis of community banking and economic performance. *Journal of Financial Services Research, 25*(2/3), 169-202.

Berger, A. N., & Udell, G. F. (1990). Collateral, loan quality and bank risk. *Journal of Monetary Economics, 25*(1), 21-42.

Berger, A. N., & Udell, G. F. (1995). Relationship lending and lines of credit in small firm finance. *The Journal of Business, 68*(3), 351-381.

Berglof, E., & Perotti, E. (1994). The governance structure of the Japanese financial keiretsu. *Journal of Financial Economics, 36*(2), 259-284.

Berkman, H., Cole, R. A., & Fu, L. J. (2009). Expropriation through loan guarantees to related parties: evidence from China. *Journal of Banking & Finance, 33*(1), 141-156.

Berle, A. A. (1959). *Power without property: a new development in American political economy*. New York: Harcout Brace and World.

Berle, A. A., & Means, G. C. (1932). *The modern corporation and private property*. New York: MacMillan.

Berlin, M., & Mester, L. J. (1992). Debt covenants and renegotiation. *Journal of Financial Intermediation, 2*(2), 95-133.

Bernanke, B. S. (1983). Non-monetary effects of the financial crisis in the propagation of the great depression. *The American Economic Review, 73*(3), 257-276.

Best, R., & Zhang, H. (1993). Alternative information sources and the information content of bank loans. *Journal of Finance, 48*(4), 1507-1522.

Bester, H. (1985). Screening vs. rationing in credit markets with imperfect information. *The American Economic Review, 75*(4), 850-855.

Bhagat, S., & Black, B. (2002). The non-correlation between board independence and long-term firm performance. *The Journal of Corporation Law 27*(2), 231-273.

Billett, M. T., Flannery, M. J., & Garfinkel, J. A. (1995). The effect of lender identity on a borrowing firm's equity return. *Journal of Finance, 50*(2), 699-718.

Billett, M. T., Flannery, M. J., & Garfinkel, J. A. (2006). Are bank loans special? Evidence on the post-announcement performance of bank borrowers. *Journal of Financial & Quantitative Analysis, 41*(4), 733-751.

Black, F. (1975). Bank funds management in an efficient market. *Journal of Financial Economics, 2*(4), 323-339.

Blundell-Wignall, A., Atkinson, P., & Lee, S. H. (2008). The current financial crisis: causes and policy issues. *Financial Market Trends*, 11-31.

Bolbol, A. A., Fatheldin, A., & Omran, M. M. (2004). *Ownership structure, firm performance, and corporate governance: evidence from selected Arab countries*. Paper presented at the ERF 11th Annual Conference.

Bolton, P., & Freixas, X. (2000). Equity, bonds, and bank debt: capital structure and financial market equilibrium under asymmetric information. *Journal of Political Economy, 108*(2), 324-351.

Boot, A. W. A. (2000). Relationship banking: what do we know? *Journal of Financial Intermediation, 9*(1), 7-25.

Boscaljon, B., & Ho, C. C. (2005). Information content of bank loan announcements to Asian corporations during periods of economic uncertainty. *Journal of Banking & Finance, 29*(2), 369-389.

Boycko, M., Shleifer, A., & Vishny, R. W. (1996). A theory of privatisation. *The Economic Journal, 106*(435), 309-319.

Boyd, B. K. (1995). CEO duality and firm performance: a contingency model. *Strategic Management Journal, 16*(4), 301-312.

Boyreau-Debray, G., & Wei, S. (2004). *Pitfalls of a state-dominated financial system: the case of China*. Paper presented at the CEPR Discussion Paper No. 4471. *Available at SSRN: http://ssrn.com/abstract=574541*

Brandt, L., & Zhu, X. (2000). Redistribution in a decentralized economy: growth and inflation in China under reform. *Journal of Political Economy, 108*(2), 422-439.

Brickley, J. A., Lease, R. C., & Smith Jr, C. W. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics, 20*, 267-291.

Brown, D. T., James, C. M., & Mooradian, R. M. (1993). The information content of distressed restructurings involving public and private debt claims. *Journal of Financial Economics, 33*(1), 93-118.

Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy, 25*(4), 409-434.

Brown, S. J., & Warner, J. B. (1980). Measuring security price performance. *Journal of Financial Economics, 8*(3), 205-258.

Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: the case of event studies. *Journal of Financial Economics, 14*(1), 3-31.

Brumm, J. M. (1996). The effects of analyst following on market response to bank loan announcements. Unpublished PhD thesis. The Louisiana State University and Agriculture and Mechanical Col, United States.

Byers, S. S., Fraser, D. R., & Shockley, R. L. (1998). Lender identity and borrower returns: the evidence from foreign bank loans to U.S. corporations. *Global Finance Journal, 9*(1), 81-94.

Cai, K., Fairchild, R., & Guney, Y. (2008). Debt maturity structure of Chinese companies. *Pacific-Basin Finance Journal, 16*(3), 268-297.

Cai, W. (2010). Do foreign strategic investors change the lending behaviour of state-owned commercial banks? Unpublished Working Paper. Research Centre, Agricultural Bank of China. (In Chinese)

Campbell, T. S., & Kracaw, W. A. (1980). Information production, market signalling, and the theory of financial intermediation. *Journal of Finance, 35*(4), 863-882.

Caprio, G., Laeven, L., & Levine, R. (2007). Governance and bank valuation. *Journal of Financial Intermediation, 16*(4), 584-617.

Carey, M., Post, M., & Sharpe, S. A. (1998). Does corporate lending by banks and finance companies differ? Evidence on specialization in private debt contracting. *Journal of Finance, 53*(3), 845-878.

Chang, E. C., & Wong, S. M. L. (2004). Political control and performance in China's listed firms. *Journal of Comparative Economics, 32*(4), 617-636.

Chemmanur, T. J., & Fulghieri, P. (1994). Reputation, renegotiation, and the choice between bank loans and publicly traded debt. *Review of Financial Studies, 7*(3), 475-506.

Chen, D., Jian, M., & Xu, M. (2008). Dividends for tunnelling in a regulated economy: the case of China. *Pacific-Basin Finance Journal, In Press, Corrected Proof.*

Chen, G., Firth, M., Gao, D. N., & Rui, O. M. (2006). Ownership structure, corporate governance, and fraud: evidence from China. *Journal of Corporate Finance, 12*(3), 424-448.

Chen, H. J., & Tsai, S. P. (2006). A note on market response to corporate syndicated loan announcements in Taiwan. *Review of Financial Risk Management, 1*(4), 19-41. (In Traditional Chinese)

Chen, J., & Thomas, S. (2005). China's bond market matures, slowly. *China Business Review, 32*(1), 30-33.

Chen, X., Chun, W., & Zhu, X. (2005). Government controlling and firm performance: an empirical study on China's listed companies. *Chinese Business Review, 4*(7), 54-58.

Chen, Z., Li, D., & Moshirian, F. (2005). China's financial services industry: the intra-industry effects of privatization of the Bank of China Hong Kong. *Journal of Banking & Finance, 29*(8-9), 2291-2324.

Chen, Z., & Xiong, P. (2002). The illiquidity discount in China. Working Paper. International Center for Financial Research, Yale University.

Cheng, X., & Degryse, H. (2007). The impact of banks and non-bank financial institutions on local economic growth in China. BOFIT Discussion Paper No. 22/2007. *Available at SSRN: http://ssrn.com/abstract=1090155*

Cheung, Y. L., Jing, L., Rau, P. R., & Stouraitis, A. (2005). Guanxi, political connections, and expropriation: the dark side of state ownership in Chinese listed companies. Working Paper. City University of Hong Kong.

Cheung, Y. L., Rau, P. R., & Stouraitis, A. (2006). Tunnelling, propping, and expropriation: evidence from connected party transactions in Hong Kong. *Journal of Financial Economics, 82*(2), 343-386.

Cho, S. P., & Rui, O. M. (2007). Exploring the effects of China's two-tier board system and ownership structure on firm performance and earnings informativeness. *Available at SSRN: http://ssrn.com/abstract=1111424*

Chow, C. W., Ho, J. L., & Mo, P. L. L. (2006). Toward understanding Chinese auditors' structuring of audit approaches, client acceptance decisions, risk assessment, and stringency of imposed reporting standards. *Journal of International Accounting Research, 5*(1), 1-23.

Chrisman, J. J., Chua, J. H., & Litz, R. A. (2004). Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence. *Entrepreneurship: Theory & Practice, 28*(4), 335-354.

Chung, K. H., & Pruitt., S. W. (1994). A simple approximation of Tobin's q. *Financial Management, 23*(3), 70-74.

Claessens, S., Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance, 57*(6), 2741-2771.

Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics, 58*(1/2), 81-112.

Cole, R. A. (1998). The importance of relationships to the availability of credit. *Journal of Banking & Finance, 22*(6-8), 959-977.

Cole, R. A., Wolken, J. D., & Woodburn, R. L. (1996). Bank and nonbank competition for small business credit: evidence from the 1987 and 1993 national survey of small business finances. *Federal Reserve Bulletin, 82*(11), 983-995.

Coleman, A., Esho, N., & Sharpe, I. (2006). Does bank monitoring influence loan contract terms? *Journal of Financial Services Research, 30*(2), 177-198.

Conyon, M. J. (1998). Directors' pay and turnover: an application to a sample of large UK firms. *Oxford Bulletin of Economics and Statistics, 60*(4), 485-507.

Cook, D. O., Schellhorn, C. D., & Spellman, L. J. (2003). Lender certification premiums. *Journal of Banking & Finance, 27*(8), 1561-1579.

Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics, 51*(3), 371-406.

CSC Staff Shanghai (2009). Foreign strategic investors losing welcome from SOEs. *Available at Website: http://www.chinastakes.com/2009/3/foreign-strategic-investors-losing-welcome-from-soes.html*

Cui, X., & Zhao, W. (2004). The empirical analysis of relationship lending: evidence form listed firms. *Zhejiang Social Sciences, 5*, 110-115. (In Chinese)

Dahiya, S., Puri, M., & Saunders, A. (2003). Bank borrowers and loan sales: new evidence on the uniqueness of bank loans. *The Journal of business, 76*(4), 563-582.

Dann, L. Y., & Mikkelson, W. H. (1984). Convertible debt issuance, capital structure change and financing-related information: some new evidence. *Journal of Financial Economics, 13*(2), 157-186.

Datta, S., Iskandar-Datta, M., & Patel, A. (1999). Bank monitoring and the pricing of corporate public debt. *Journal of Financial Economics, 51*(3), 435-449.

DeFond, M. L., Wong, T. J., & Li, S. (1999). The impact of improved auditor independence on audit market concentration in China. *Journal of Accounting and Economics, 28*(3), 269-305.

Delios, A., Wu, Z., & Zhou, N. (2006). A new perspective on ownership identities in China's listed companies. *Management and Organization Review, 2*(3), 319-343.

Demirgüç-Kunt, A., & Levine, R. (2001). *Financial structure and economic growth: a cross-country comparison of banks.* Cambridge, Massachusetts: The MIT Press.

Demiroglu, C., & James, C. M. (2007). *The information content of bank loan covenants*. Paper presented at the American Finance Association 2008 Meetings, Department of Economics, Harvard University. *Available at SSRN: http://ssrn.com/abstract=959393*

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: causes and consequences. *Journal of Political Economy, 93*(6), 1155-1177.

Demski, J. S., & Feltham, G. A. (1978). Economic incentives in budgetary control systems. *Accounting Review, 53*(2), 336-359.

Deng, X., & Wang, Z. (2006). Ownership structure and financial distress: evidence from public-listed companies in China. *International Journal of Management, 23*(3), 486-502.

Denis, D. J., & Mihov, V. T. (2003). The choice among bank debt, non-bank private debt, and public debt: evidence from new corporate borrowings. *Journal of Financial Economics, 70*(1), 3-23.

Dennis, S., Nandy, D., & Sharpe, I. G. (2000). The determinants of contract terms in bank revolving credit agreements. *Journal of Financial & Quantitative Analysis, 35*(1), 87-110.

Detragiache, E., Garella, P., & Guiso, L. (2000). Multiple versus single banking relationships: theory and evidence. *Journal of Finance, 55*(3), 1133-1161.

Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies, 51*(166), 393-414.

Diamond, D. W. (1991a). Debt maturity structure and liquidity risk. *Quarterly Journal of Economics, 106*(3), 709-737.

Diamond, D. W. (1991b). Monitoring and reputation: the choice between bank loans and directly placed debt. *Journal of Political Economy, 99*(4), 689-721.

Diamond, D. W. (1993). Seniority and maturity of debt contracts. *Journal of Financial Economics, 33*(3), 341-368.

Dinc, S. (2003). *Government ownership of banks and political lending in developing countries*. University of Michigan mimeo.

Ding, Y., Zhang, H., & Zhang, J. (2007). Private vs. state ownership and earnings management: evidence from Chinese listed companies. *Corporate Governance: An International Review, 15*(2), 223-238.

Dobson, W., & Kashyap, A. K. (2006). The contradiction in China's gradualist banking reforms. *Brookings Papers on Economic Activity* (2), 103-148.

Dodd, E. M., Jr. (1932). For whom are corporate managers trustees? *Harvard Law Review, 45*(7), 1145-1163.

Dodd, P., & Warner, J. B. (1983). On corporate governance: a study of proxy contests. *Journal of Financial Economics, 11*(1-4), 401-438.

Easterwood, J. C., & Kadapakkam, P. R. (1991). The role of private and public debt in corporate capital structures. *Financial Management, 20*(3), 49-57.

Eckbo, B. E. (1986). Valuation effects of corporate debt offerings. *Journal of Financial Economics, 15*(1-2), 119-151.

Eckbo, B. E., Maksimovic, V., & Williams, J. (1990). Consistent estimation of cross-sectional models in event studies. *Review of Financial Studies, 3*(3), 343-365.

Edwards, J., & Fischer, K. (1994). *Banks, finance and investment in Germany.* Cambridge: Cambridge University Press.

Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics, 48*(1), 35-54.

Eisenhardt, K. M. (1985). Control: organizational and economic approach. *Management Science, 31*(2), 134-149.

Eisenhardt, K. M. (1988). Agency- and institutional-theory explanation: the case of retail sales compensation. *Academy of Management Journal, 31*(3), 488-544.

Ellman, M. (1988). China's OTC markets. *Comparative Economic Studies, 30*, 59-64.

European Corporate Governance Network (1997). The separation of ownership and control: a survey of 7 European countries. *Preliminary Report to the European Commission.* Brussels: European Corporate Governance Network.

Faccio, M. (2006). Politically connected firms. *The American Economic Review, 96*(1), 369–386.

Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics, 65*(3), 365-395.

Faccio, M., Lang, L. H. P., & Young, L. (2001). Dividends and expropriation. *The American Economic Review, 91*(1), 54-78.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88*(2), 288-307.

Fama, E. F. (1985). What's different about banks? *Journal of Monetary Economics, 15*(1), 29-39.

Fama, E. F., Fisher, L., Jensen, M., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review, 10*(1), 1–21.

Fama, E. F., & Jensen, M. C. (1983a). Separation of ownership and control. *Journal of Law & Economics, 26*(2), 301-326.

Fama, E. F., & Jensen, M. C. (1983b). Agency problems and residual claims. *Journal of Law & Economics, 26*(2), 327-350.

Fan, D. K. K., Lau, C. M., & Young, M. (2007). Is China's corporate governance beginning to come of age? The case of CEO turnover. *Pacific-Basin Finance Journal, 15*(2), 105-120.

Fan, G. & Wang, X. (2001). *Annual Report 2000 Marketization Index for China's Provinces.* Beijing: National Economic Research Institute China Reform Foundation.

Fan, G., Wang, X., & Zhu, P. H. (2002). *Annual Report 2001 Marketization Index for China's Provinces*. Beijing: National Economic Research Institute China Reform Foundation.

Fan, G., Wang, X., & Zhu, P. H. (2004). *Annual Report 2004 Marketization Index for China's Provinces*. Beijing: National Economic Research Institute China Reform Foundation.

Fan, G., Wang, X., & Zhu, P. H. (2007). *Annual Report 2006 Marketization Index for China's Provinces*. Beijing: National Economic Research Institute China Reform Foundation.

Fan, G., Wang, X., & Zhu, P. H. (2009). *Annual Report 2009 Marketization Index for China's Provinces*. Beijing: National Economic Research Institute China Reform Foundation.

Fan, J. P. H., Wong, T. J., & Zhang, T. (2005). The emergence of corporate pyramids in China. *Available at SSRN: http://ssrn.com/abstract=686582*

Fan, J. P. H., Wong, T. J., & Zhang, T. (2007). Organizational structure as a decentralization device: evidence from corporate pyramids. *Available at SSRN: http://ssrn.com/abstract=963430*

Fery, J., Gasbarro, D., Woodliff, D. R., & Zumwalt, J. K. (2003). Market reaction to published and non-published corporate loan announcements. *Quarterly Review of Economics & Finance, 43*(1), 1-10.

Feyzioglu, T., Porter, N., & Takats, E. (2009). Interest rate liberalization in China. *IMF Working Papers*. International Monetary Fund, Asia and Pacific Department.

Fields, L. P., Fraser, D. R., Berry, T. L., & Byers, S. (2006). Do bank loan relationships still matter? *Journal of Money, Credit & Banking, 38*(5), 1195-1209.

Firth, M., Fung, P. M. Y., & Rui, O. M. (2006). Firm performance, governance structure, and top management turnover in a transitional economy. *Journal of Management Studies, 43*(6), 1289-1330.

Firth, M., Fung, P. M. Y., & Rui, O. M. (2007). Ownership, two-tier board structure, and the informativeness of earnings-evidence from China. *Journal of Accounting and Public Policy, 26*(4), 463-496.

Flannery, M. J. (1986). Asymmetric information and risky debt maturity choice. *Journal of Finance, 41*(1), 19-37.

Franks, J., & Mayer, C. (1994). The ownership and control of German corporations. Unpublished Manuscript. London Business School.

Franks, J., & Sussman, O. (2005). Financial distress and bank restructuring of small to medium size UK companies. *Review of Finance, 9*(1), 65-96.

Fu, D. (2005). Foreign exchange policy and banking reform in China. *Federal Reserve Bank of Dallas: The Southwest Economy*, 16-18.

Gao, L., He, S., & Yi, C. (2006). State control, government intervention, bank loan and asset appropriation. *Journal of Financial Research, 6*, 90-98. (In Chinese)

Gao, L., & Kling, G. (2008). Corporate governance and tunnelling: empirical evidence from China. *Pacific-Basin Finance Journal, 16*(5), 591-605.

Garcia-Herrero, A., Gavila, S., & Santabarbara, D. (2006). China's banking reform: an assessment of its evolution and possible impact. *CESifo Economic Studies, 52*(2), 304-363.

Gilson, S. C., & Warner, J. B. (1998). Private versus public debt: evidence from firms that replace bank loans with junk bonds. *Available at SSRN: http://ssrn.com/abstract=140093 or DOI: 10.2139/ssrn.140093*

Gomes, A. R., & Novaes, W. (2005). Sharing of control as a corporate governance mechanism. PIER Working Paper No. 01-029; University of Pennsylvania, Institute for Law & Economics Research Paper 01-12. *Available at SSRN: http://ssrn.com/abstract=277111 or DOI: 10.2139/ssrn.277111*

Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal, 15*(3), 241-250.

Goriaev, A., & Sonin, K. (2004). Prosecutors and financial markets: an event study of the YUKOS affair. Working Paper. New Economic School, Nakhimovsky.

Gorton, G., & Kahn, J. (2000). The design of bank loan contracts. *The Review of Financial Studies, 13*(2), 331-364.

Gorton, G., & Schmid, F. A. (2000). Universal banking and the performance of German firms. *Journal of Financial Economics, 58*(1/2), 29-80.

Greenbaum, S., Kanatas, G., & Venezia, I. (1989). Equilibrium loan price under the bank-client relationship. *Journal of Banking and Finance, 13*, 221-235.

Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *Bell Journal of Economics, 11*(1), 42-64.

Gugler, K., & Yurtoglu, B. B. (2003). Corporate governance and dividend pay-out policy in Germany. *European Economic Review, 47*(4), 731-758.

Gunasekarage, A., Hess, K., & Hu, A. (2007). The influence of the degree of state ownership and the ownership concentration on the performance of listed Chinese companies. *Research in International Business and Finance, 21*(3), 379-395.

Hadlock, C. J., & James, C. M. (2002). Do banks provide financial slack? *Journal of Finance*, 57(3), 1383-1419.

Hale, G., & Santos, J. A. C. (2008). The decision to first enter the public bond market: The role of firm reputation, funding choices, and bank relationships. *Journal of Banking & Finance, 32*(9), 1928-1940.

Harvey, C. R., Lins, K. V., & Roper, A. H. (2004). The effect of capital structure when expected agency costs are extreme. *Journal of Financial Economics, 74*(1), 3-30.

Henry, D. (2006). Agency costs, corporate governance and ownership structure. Working Paper. La Trobe University.

Heremans, D. (2007). Corporate governance issues for banks: a financial stability perspective. Working Paper. Department of Economics, K.U.Leuven.

Hess, K., Gunasekarage, A., & Hovey, M. (2008). State dominant and non-state dominant ownership concentration and firm performance: evidence from China. Working Paper. *Available at SSRN: http://ssrn.com/abstract=1112383*

Higgins, R. C. (1992). *Analysis for financial management*. New York: Irwin/McGraw-Hill.

Ho, S. S. M. (2003). Corporate governance in China. Working Paper. Hong Kong Baptist University.

Holderness, C. G., Kroszner, R. S., & Sheehan, D. P. (1999). Were the good old days that good? Changes in managerial stock ownership since the great depression. *Journal of Finance, 54*(2), 435-469.

Holderness, C. G., & Sheehan, D. P. (1988). The role of majority shareholders in publicly held corporations: an exploratory analysis. *Journal of Financial Economics, 20*, 317-346.

Hooks, L. M. (2003). The impact of firm size on bank debt use. *Review of Financial Economics, 12*(2), 173-189.

Houston, J., & James, C. (1996). Bank information monopolies and the mix of private and public debt claims. *Journal of Finance, 51*(5), 1863-1889.

Houston, J. F., & Venkataramat, S. (1994). Optimal maturity structure with multiple debt claims. *Journal of Financial & Quantitative Analysis, 29*(2), 179-197.

Hovey, M., & Naughton, T. (2007). A survey of enterprise reforms in China: the way forward. *Economic Systems, 31*(2), 138-156.

Iannotta, G., Nocera, G., & Sironi, A. (2007). Ownership structure, risk and performance in the European banking industry. *Journal of Banking & Finance, 31*(7), 2127-2149.

James, C. (1987). Some evidence on the uniqueness of bank loans. *Journal of Financial Economics, 19*(2), 217-235.

James, C. (1996). Bank debt restructurings and the composition of exchange offers in financial distress. *Journal of Finance, 51*(2), 711-727.

James, C., & Smith, D. C. (2000). Are banks still special? New evidence on their role in the corporate capital-raising process. *Journal of Applied Corporate Finance, 13*, 52-63.

James, C., & Weir, P. (1988). Are bank loans different? Some evidence from the stock market. *Journal of Applied Corporate Finance, 1*(2), 46-54.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance, 48*(3), 831-880.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *The Journal of Political Economy, 98*(2), 225-264.

Jian, M., & Wong, T. J. (2003). Earnings management and tunnelling through related party transactions: evidence from Chinese Corporate Groups. EFA 2003 Annual Conference Paper No. 549. *Available at SSRN: http://ssrn.com/abstract=424888 or DOI: 10.2139/ssrn.424888*

Jiang, G., Lee, C. M., & Yue, H. (2008). Tunnelling in China: the remarkable case of inter-corporate loans: *Available at SSRN: http://ssrn.com/abstract=1154314*

Joh, S. W. (2003). Corporate governance and firm profitability: evidence from Korea before the economic crisis. *Journal of Financial Economics, 68*(2), 287-322.

Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial crisis. *Journal of Financial Economics, 58*(1/2), 141-186.

Johnson, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunnelling. *The American Economic Review, 90*(2), 22-27.

Johnson, S. A. (1997). An empirical analysis of the determinants of corporate debt ownership structure. *Journal of Financial and Quantitative Analysis, 32*(1), 47-69.

Johnson, S. A. (1998). The effect of bank debt on optimal capital structure. *Financial Management, 27*(1), 47-56.

Kale, J. R., & Noe, T. H. (1990). Risky debt maturity choice in a sequential game equilibrium. *Journal of Financial Research, 13*(2), 155-165.

Kane, E. J., & Malkiel, B. G. (1965). Bank portfolio allocation, deposit variability and the availability doctrine. *Quarterly Journal of Economics, 79*(1), 113-134.

Kang, J. K., & Liu, W. L. (2008). Bank incentives and suboptimal lending decisions: evidence from the valuation effect of bank loan announcements in Japan. *Journal of Banking & Finance, 32*(6), 915-929.

Kang, J. K., & Stulz, R. M. (2000). Do banking shocks affect borrowing firm performance? An analysis of the Japanese experience. *Journal of Business, 73*(1), 1-23.

Kato, T., & Long, C. (2006). CEO turnover, firm performance, and enterprise reform in China: evidence from micro data. *Journal of Comparative Economics, 34*(4), 796-817.

Khanna, T. (2000). Business groups and social welfare in emerging markets: existing evidence and unanswered questions. *European Economic Review, 44*(4-6), 748-761.

Khwaja, A. I., & Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *Quarterly Journal of Economics, 120*(4), 1371-1411.

Klein, A. (1998). Firm performance and board committee structure. *Journal of Law and Economics, 41*(1), 275-303.

Koh, L. H. (2001). Market response to corporate loan announcements in New Zealand. Unpublished master's thesis. Lincoln University, Canterbury, New Zealand.

Kothari, S., & Warner, J. (2007). Econometrics of event studies. In B. E. Eckbo (Ed.), *Handbook of Corporate Finance: Empirical Corporate Finance* (Vol. 1, pp. 336). North-Holland: Elsevier.

Krishnaswami, S., Spindt, P. A., & Subramaniam, V. (1999). Information asymmetry, monitoring, and the placement structure of corporate debt. *Journal of Financial Economics, 51*(3), 407-434.

Kvanli, A. H., Guynes, C. S., & Pavur, R. J. (2002). *Introduction to business statistics: a Microsoft Excel, integrated approach* (6 ed.): South-Western/Thomson Learning.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance, 54*(2), 471-517.

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (2002). Government ownership of banks. *Journal of Finance, 57*(1), 265-301.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (1997). Legal determinants of external finance. *Journal of Finance, 52*(3), 1131-1150.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113-1155.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000a). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1/2), 3-27.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (2000b). Agency problems and dividend policies around the world. *Journal of Finance, 55*(1), 1-33.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (2002). Investor protection and corporate valuation. *Journal of Finance, 57*(3), 1147-1170.

Laeven, L., & Levine, R. (2008). Complex ownership structures and corporate valuations. *Review of Financial Studies, 21*(2), 579-604.

Lam, S. S., & Du, J. (2004). Information asymmetry and estimation risk: preliminary evidence from Chinese equity markets. *Pacific-Basin Finance Journal, 12*(3), 311-331.

Lardy, N. (1998). *China's unfinished economic revolution*. Washington DC: Brookings Institution Press.

Lau, L. J., Qian, Y., & Roland, G. (2000). Reform without losers: an Interpretation of China's Dual-Track Approach to Transition. *Journal of Political Economy, 108*(1), 120-142.

Le, K.-S. (2007). Syndicated loans in the United States (1995-2000): announcement effects, long-term performance and capital structure issues from a borrower perspectives. Unpublished PhD thesis. Murdoch University, Perth, Australia.

Lee, K.-W., & Sharpe, I. G. (2006). *Does the bank's monitoring ability matter?* Paper presented at the Annual Meeting of the Financial Management Association.

Lee, K.-W., & Sharpe, I. G. (2009). Does a bank's loan screening and monitoring matter? *Journal of Financial Services Research, 35*(1), 33-52.

Leftwich, R. (1983). Accounting information in private markets: evidence from private lending agreements. *Accounting Review, 58*(1), 23-42.

Leland, H. E., & Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *Journal of Finance, 32*(2), 371-387.

Lemmon, M. L., & Lins, K. V. (2003). Ownership structure, corporate governance, and firm value: evidence from the East Asian financial crisis. *Journal of Finance, 58*(4), 1445-1468.

Leung, E., Liu, L., Shen, L., Taback, K., & Wang, L. (2002). Financial reform and corporate governance in China. Working Paper. MIT Sloan School of Management. Cambridge, MA.

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of Financial Economics, 69*(3), 505-527.

Li, D. D., & Liang, M. (1998). Causes of the soft budget constraint: evidence on three explanations. *Journal of Comparative Economics, 26*(1), 104-116.

Li, K., & McNally, W. (2003). The decision to repurchase, announcement returns and insider holdings: a conditional event study. *The ICFAI Journal of Applied Finance, 9*, 55-70.

Li, W. (1997). The impact of economic reform on the performance of Chinese state enterprises, 1980-1989. *The Journal of Political Economy, 105*(5), 1080-1106.

Lins, K. V. (2003). Equity ownership and firm value in emerging markets. *Journal of Financial & Quantitative Analysis, 38*(1), 159-184.

Liu, D. (2005). *Controlling shareholders' tunnelling, corporate value and non-tradable shares reform*. Paper presented at the Second Chinese Finance Annual Conference.

Liu, Q., & Lu, J. Z. (2003). Earnings management to tunnel: evidence from China's listed companies. EFMA 2004 Basel Meetings Paper. *Available at SSRN: http://ssrn.com/abstract=349880 or DOI: 10.2139/ssrn.349880*

Lu, F., Balatbat, M. C. A., & Czernkowski, R. M. (2008). The role of consideration in China's split share structure reform. *Available at SSRN: http://ssrn.com/abstract=1284067.*

Lu, Y., & Yao, J. (2006). Impact of state ownership and control mechanisms on the performance of group affiliated companies in China. *Asia Pacific Journal of Management, 23*(4), 485-503.

Lummer, S. L., & McConnell, J. J. (1989). Further evidence on the bank lending process and the capital-market response to bank loan agreements. *Journal of Financial Economics, 25*(1), 99-122.

MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature, 35*(1), 13-39.

Mak, Y. T., & Li, Y. (2001). Determinants of corporate ownership and board structure: evidence from Singapore. *Journal of Corporate Finance, 7*(3), 235-256.

Mathieu, R., Robb, S., & Zhang, P. (2006). Leadership structure and the value of debt contracts: evidence from the Canadian market. *The International Journal of Accounting, 41*(2), 119-140.

Mayer, C. (1988). Financial systems, corporate finance, and economic development. In R. G. Hubbard (Ed.), *Asymmetric Information, Corporate Finance, and Investment*. Chicago, IL: University of Chicago Press.

McDonald, J. E. (1994). Asymmetric information: the case of bank loan commitments. *Journal of Financial and Strategic Decisions, 7*(3), 23-31.

Mikkelson, W. H., & Partch, M. M. (1986). Valuation effects of security offerings and the issuance process. *Journal of Financial Economics, 15*(1/2), 31-60.

Mitton, T. (2002). A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. *Journal of Financial Economics, 64*(2), 215-241.

Morck, R., Yavuz, M. D., & Yeung, B. (2009). Banking system control, capital allocation and economy performance. *NBER Working Paper No. 15575*.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

Nakagane, K. (2000). SOE reform and privatization in China: a note on several theoretical and empirical issues. Working Paper. University of Tokyo.

Nakamura, L. I. (1989). Loan workouts and commercial bank information: why banks are special. Working Papers No. 89-11. Federal Reserve Bank of Philadelphia.

Nakamura, L. I. (1993). Commercial bank information: implications for the structure of banking. In M. Klausner & L. J. White (Eds.), *Structural Change in Banking*. New York: Irwin Professional Pub.

OECD. (2000). *Reforming China's enterprises.* Organization for Economic Cooperation and Development, Pairs.

OECD. (2004). *OECD principles of corporate governance.* Organization for Economic Cooperation and Development, Pairs.

Ongena, S. R. G., & Roscovan, V. (2009). Bank loan announcements and borrower stock returns: does bank origin matter? ECB Working Paper No. 1023. *Available at SSRN: http://ssrn.com/abstract=1343017*

Ongena, S. R. G., & Smith, D. C. (1999). Bank relationships: a review. In P. T. Harker & S. A. Zenios (Eds.), *Performance of Financial Institutions: Efficiency, Innovation, Regulation*. Cambridge: Cambridge University Press.

Ongena, S. R. G., & Smith, D. C. (2000). What determines the number of bank relationships? Cross-country evidence. *Journal of Financial Intermediation, 9*(1), 26-56.

Park, A., & Sehrt, K. (2001). Tests of financial intermediation and banking reform in China. *Journal of Comparative Economics, 29*(4), 608-644.

Park, C. (2000). Monitoring and structure debt contracts. *Journal of Finance, 55*(5), 2157-2195.

Pearce, J. A., & Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies, 29*(4), 411 - 438.

Pennacchi, G. G. (1988). Loan sales and the cost of bank capital. *Journal of Finance, 43*(2), 375-396.

Petersen, M. A., & Rajan, R. G. (1994). The benefits of lending relationships: evidence from small business data. *Journal of Finance, 49*(1), 3-37.

Peterson, P. P. (1989). Event studies: a review of issues and methodology. *Quarterly Journal of Business & Economics, 28*(3), 36-66.

Pfeffer, J. (1973). Size, composition, and function of hospital boards of directors: a study of organization-environment linkage. *Administrative Science Quarterly, 18*(3), 349-364.

Podpiera, R. (2006). Progress in China's banking sector reform: has bank behaviour changed? *IMF Working Paper WP/06/71*, 1-25. *Available at SSRN: http://ssrn.com/abstract=898732*.

Pound, J. (1988). Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics, 20*, 237-265.

Prabhala, N. R. (1997). Conditional methods in event studies and an equilibrium justification for standard event-study procedures. *The Review of Financial Studies, 10*(1), 1–38.

Preece, D. C., & Mullineaux, D. J. (1994). Monitoring by financial intermediaries: banks vs. nonbanks. *Journal of Financial Services Research, 8*(3), 193-202.

Preece, D. C., & Mullineaux, D. J. (1996). Monitoring, loan renegotiability, and firm value: the role of lending syndicates. *Journal of Banking & Finance, 20*(3), 577-593.

Prowse, S. D. (1992). The structure of corporate ownership in Japan. *Journal of Finance, 47*(3), 1121-1140.

Qi, D., Wu, W., & Zhang, H. (2000). Shareholding structure and corporate performance of partially privatized firms: evidence from listed Chinese companies *Pacific-Basin Finance Journal, 8*(5), 587-610.

Qian, Y., & Roland, G. (1996). The soft budget constraint in China. *Japan and the World Economy, 8*(2), 207-223.

Quan, Q., & Huyghebaert, N. (2006). *Share issuing privatizations in China: determinants of public share allocation and underpricing*. Paper presented at the EFA 2007 Ljubljana Meetings.

Rajan, R. G. (1992). Insiders and outsiders: the choice between informed and arm's-length debt. *Journal of Finance, 47*(4), 1367-1400.

Rajan, R. G., & Winton, A. (1995). Covenants and collateral as incentives to monitor. *Journal of Finance, 50*(4), 1113-1146.

Ramakrishnan, R. T. S., & Thakor, A. V. (1984). Information reliability and a theory of financial intermediation. *Review of Economic Studies, 51*(166), 415-432.

Rime, B. (2003). The reaction of Swiss banks' stock prices to the Russian crisis. *Swiss Journal of Economics and Statistics, 139*(I), 101-124.

Robbins, E. H., & Schatzberg, J. D. (1986). Callable bonds: a risk-reducing signalling mechanism. *Journal of Finance, 41*(4), 935-949.

Roe, M. J. (1994). *Strong managers, weak owners: the political roots of American corporate finance*. Princeton: Princeton University Press.

Ross, S. A. (1973). The economic theory of agency: the principal's problem. *The American Economic Review, 63*(2), 134-139.

Sapienza, P. (2002). What do state-owned firms maximize? Evidence from the Italian banks. Working Paper. Northwestern University. *Available at SSRN: http://ssrn.com/abstract=303381*

Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of Financial Economics, 72*(2), 357-384.

Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: a stylized model of customer relationships. *Journal of Finance, 45*(4), 1069-1087.

Shen, C.-H., Lu, C.-H., & Wu, M.-W. (2009). Impact of foreign bank entry on the performance of Chinese banks. *China & World Economy, 17*(3), 102-121.

Shen, H., Zhang, C., & Chen, H. (2007). On the information in bank loans announcement of listed companies: free cash flow hypothesis and pecking order theory. *Journal of Financial Research, 12*, 154-164. (In Chinese)

Shi, D. H., & Shitu, D. N. (2004). Empirical research of Chinese listed firm's corporate governance and its impact on corporate performance. *World Economics, 27*(5), 69-79.

Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy, 94*(3), 461-488.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance, 52*(2), 737-783.

Singh, M., & Davidson III, W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance, 27*(5), 793-816.

Slovin, M. B., Johnson, S. A., & Glascock, J. L. (1992). Firm size and the information content of bank loan announcements. *Journal of Banking & Finance, 16*(6), 1057-1071.

Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. Edinburgh: Hayes Barton Press.

Su, D., & Fleisher, B. M. (1999). An empirical investigation of underpricing in Chinese IPOs. *Pacific-Basin Finance Journal, 7*(2), 173-202.

Sun, Q., & Tong, W. H. S. (2003). China share issue privatization: the extent of its success. *Journal of Financial Economics, 70*(2), 183-222.

Tenev, S., Zhang, C., & Brefort, L. (2002). *Corporate governance and enterprise reform in China: building the institutions of modern markets*. Washington, DC: World Bank and the International Finance Corporation.

Thakor, A. V. (1996). Capital requirements, monetary policy, and aggregate bank lending: theory and empirical evidence. *Journal of Finance, 51*(1), 279-324.

The People's Bank of China. (2003). *The interpretation of policies on expanding the floating range of lending rates by the central banks*. The People's Bank of China, Beijing, China.

The People's Bank of China. (2005). Report on steady progress in market-based interest rate reform. *Supplement to the China Monetary Policy Report*. The People's Bank of China, Beijing, China.

Tian, L. (2001a). *State shareholding and the value of China's firms.* Paper presented at the EFA 2001 Barcelona Meetings. *Available at SSRN: http://ssrn.com/abstract=275910 or DOI: 10.2139/ssrn.275910*

Tian, L. (2001b). Debt governance, bank capture and soft budget constraints: an empirical analysis of an emerging market. Working Paper. Centre for New and Emerging Markets at the London Business School.

Tian, L. (2004). Bank loans, managerial agency costs, and government ownership. Working Paper. Peking University.

Tian, L., & Estrin, S. (2008). Retained state shareholding in Chinese PLCs: does government ownership always reduce corporate value? *Journal of Comparative Economics, 36*(1), 74-89.

Wang, C. (2005). Ownership and operating performance of Chinese IPOs. *Journal of Banking & Finance, 29*(7), 1835-1856.

Wang, Z., & Deng, X. (2006). Corporate governance and financial distress: evidence from Chinese listed companies *The Chinese Economy, 39*(5), 5–27.

Wei, M., & Wan, l. (2007). *Internal capital markets in groups, bank loans and creditor protection*. Paper presented at the Fourth Chinese Finance Annual Conference. (In Chinese)

Wei, Z., Xie, F., & Zhang, S. (2005). Ownership structure and firm value in China's privatized firms: 1991-2001. *Journal of Financial & Quantitative Analysis, 40*(1), 87-108.

Weir, C., Laing, D., & McKnight, P. J. (2002). Internal and external governance mechanisms: their impact on the performance of large UK public companies. *Journal of Business Finance & Accounting, 29*(5&6), 579-611.

White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica, 48*(4), 817-838.

Wolfenzon, D. (1999). A theory of pyramidal ownership. Working Paper. Harvard University.

Wong, S. M. L., Opper, S., & Hu, R. (2004). Shareholding structure, de-politicization and enterprise performance: lessons from China's listed companies. *Economics of Transition, 12*(1), 29-66.

World Bank. (1995). *China: the Emerging Capital Market*. China and Mongolia Department, East Asia and Pacific Region. Report no. 14501-CHA. Washington, DC: World Bank.

Wu, Q. (2005). International finance: issues related to law and financial development. Unpublished PhD's thesis The University of New Sales Wales, Syndey, Australia.

Xie, P. (1998). A study of the Chinese non-bank financial institutions. *Journal of Economics and Finance, 3*, 3-7.

Xu, X., & Wang, Y. (1997). Ownership structure, corporate governance, and corporate performance: the case of Chinese stock companies. World Bank Policy Research Working Paper No. 1794. *Available at SSRN: http://ssrn.com/abstract=45303*

Xu, X., & Wang, Y. (1999). Ownership structure and corporate governance in Chinese stock companies. *China Economic Review, 10*(1), 75-98.

Yafeh, Y., & Yosha, O. (2003). Large shareholders and banks: who monitors and how? *The Economic Journal, 113*(484), 128-146.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics, 40*(2), 185-211.

Yermack, D. (1997). Good timing: CEO stock option awards and company news announcements. *The Journal of Finance, 52*(2), 449-476.

Yu, M. G. (2004). Study on the agency problem of controlling shareholder in China's listed companies. Unpublished PhD thesis. Huazhong University of Science and Technology, Wuhan, Hubei Province, China.

Appendix A

Event Studies on the Impact of Bank Loan Announcements on Borrower Firm Price

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Mikkelson and Partch (1986) (Z-Value)	US	1972-1982		NS	NS	0.89 (2.58)***	Credit Agreements (155)
James (1987) (Z-Value)	US	1974-1983		NS	−0.91 (−1.87)*	1.93 (3.96)***	Bank Loan Announcements (80)
James and Wier (1988)	US	1973-1983		NS	−0.91*	1.93***	Financing Announcements (207) Public Straight Debt (90)/ Private Placement of Debt (30)/ Bank Loan Agreement (80)
Lummer and McConnell (1989) (Z-Value)	US	1976-1986				0.61 (2.69)***	Bank Credit Agreements (728)
							Revised (357)/New (371) 1.24 (4.33)***/−0.01 (NS)
							Favourable (259)/ Unfavourable (22) 0.87 (3.76) ***/ −3.96 (−3.28)***
Slovin et al. (1992) (Z-Value)	US	1980-1986				1.30 (5.08)***	Loan Agreements (273)
							Renewals (124)/Initiations (149) 1.55 (4.16)***/1.09 (3.09)***
							Small firms (156)/ Large firms (117) 1.92 (5.35)***/0.48 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Best and Zhang (1993) (Z-Value)	US	1977-1989				0.32 (2.31)**	Bank Credit Agreements (491)
							Renewals (304)/New (187) 0.36 (1.97)**/0.26 (NS)
							Noisy Renewals (156)/ Accurate New (187) 0.60 (2.35)**/−0.05 (NS)
McDonald (1994) (Z-Value)	US	1980-1986				0.64 (1.99)**	Loan Commitment Announcements (250)
Preece and Mullineaux (1994) (Z-Value)	US	1980-1987			1.84 (4.25)***	0.79 (3.77)***	Loan Agreements (439)
							Bank (387)/Non-bank (36)/ Non-bank BHC Subsidiaries (16) 0.79 (3.77)***/1.84 (4.25)***/ 2.77 (3.84)***
Armitage (1995b) (T-Value)	UK	1988-1991				NS	Syndicated Loan Announcements (574)
							New Facilities (363)/ Increase Facilitates (36) NS/0.73 (2.03)**
Billett et al. (1995) (T-Value)	US	1980-1989	0.68 (4.33)***		1.08[a] (1.58)	0.63 (3.63)***	Loans (626)
							Renewals (187)/New Banks (51) 1.09 (2.83)***/0.65 (1.88)*
							Bank's Rating AAA (78) < BAA (29) 0.63 (2.83)***/−0.57 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Brumm (1996) (Z-Value)	US	1987-1992				1.11 (3/37)***	All Uncontaminated Bank Loan Announcements (328)
							Unsecured (194)/Secured (52)/ Unknown (82) 1.00 (NS)/0.62 (NS)/ 1.66 (3.83)***
							Revolving (282)/Term(29)/ Unknown (17) 1.42 (4.18)***/0.36 (NS)/ −2.80 (−2.28)**
							Short (87)/Long (142)/ Unknown (99) Maturity 0.49 (NS)/1.74 (4.33)***/ 0.73 (NS)
							One (185)/Two – Five (70)/Five or More (64)/Unknown (9) Participating Banks 1.58 (3.49)/0.42 (NS)/ 0.19 (NS)/3.14 (NS)
							Initial (89)/Favourable Renewal (70)/Unfavourable Renewal (18)/Terminations (6) 2.01 (5.64)***/3.12 (6.12)***/ −4.86 (−8.33)***/ −13.15 (−6.79)***

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
							Small (183)/Medium (86)/ Large (59) Firms 1.61 (3.92)***/0.68 (NS)/ 0.17 (NS)
							1-Mining (26)/ 2-Manufacturing (33)/ 3-Manufacturing (113)/ 4-Transportation (20)/ 5-Trade (66)/ 7-Services (43)/ 8-Services (27) −0.13 (NS)/0.07 (NS)/ 1.78 (3.01)***/2.45 (2.58)***/ 1.39 (2.13)**/0.49 (NS)/0.03 (NS)
							Listed on NYSE/AMEX (143)/ Listed on NASDAQ (185) 1.23 (2.13)**/1.01 (2.62)***
Preece and Mullineaux (1996) (Z-Value)	US	1980-1987				1.00 (5.17)***	Loan Agreements (419)
							No Syndicate (121)/ All Syndicate (325) 1.79 (4.88)***/0.73 (3.32)***
Thakor (1996) (Z-Value)	US	1989-1993				0.02% (6.63)***	Loan Commitments (161)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Aintablian and Roberts (2000) (T-Value)	Canada	1988-1995			NS	1.23 (5.62)***	Corporate Loan (137)
							Renewals (35)/New (69)/ Restructuring (18) 1.27 (3.52)***/0.62 (2.78)***/ 3.46 (4.28)***
							Favourable (20)/Unfavourable (4) 1.73 (3.98)***/−2.48 (NS)
André et al. (2001) (Z-Value)	Canada	1982-1995				2.27 (2.68)***	Bank Credit Agreements (122)
							(1) Lines of Credit <1988 (13)/>1988 (33) 4.82 (NS)/0.32 (NS)
							(2) Tem loans <1988(22)/>1988 (54) 1.14 (NS)/3.3 (3.35)***
Koh (2001) (T-Value)	New Zealand	1995-2000	0.22 (1.77)*	NS	0.48 (2.88)***	0.84 (3.93)***	Corporate Loans (66)
							Public (30)/Private (36) −0.10 (NS)/0.48 (2.88)***
							Bank (22)/Non-bank (14) 0.84 (3.93)***/−0.083 (NS)
							Non-syndicated (18)/ Syndicated (18) 0.15 (NS)/0.80 (3.41)***
							New (27)/Renewal (9) 0.70 (3.64)***/−0.18 (NS)
							Large Firms (22)/Small Firms (14) 0.57 (2.69)***/0.33 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Hadlock and James (2002) (Z-Value)	US	1980-1993			NS	1.45 (3.44)***	Clean Bank Loans (144)
Fery et al. (2003) (T-Value)	Australia	1983-1999			0.38 (1.83)*		All Corporate Loans (196)
							Published (45)/Non-published (151) Announcements 1.19 (2.24)**/0.14 (NS)
							Published: Single (18)/ Multiple (22) 1.62 (2.30)**/0.88 (NS)
Cui and Zhao (2004) (T-Value)	China	January 1, 2004 - May 20, 2004				1.86 (3.95)***	Bank Loan Announcements (53)
Boscaljon and Ho (2005) (Z-Value)	HK Korea Thailand Taiwan	October 1, 1991 - April 30, 2002				1.25 (4.31)***	Uncontaminated Bank Loan Announcements (128)
							Initiations (56)/Renewals (72) 1.27 (2.83)***/1.23 (3.25)***
							Local (67)/International (61) Lenders 1.62 (3.65)***/0.84 (2.41)**
							Prior to (57)/After (71) Financial Crisis 0.13 (NS)/4.61 (2.41)**
							Hong Kong (44)/Korea (39) Taiwan (25)/Thailand (20) 1.63 (3.94)***/2.61 (3.66)*** 0.21 (NS)/－0.94 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Billett et al. (2006) (T-Value)	US	1980-2000				−0.33***[b]	Loans (10619)
						−0.47[c] (−3.46)***	
						−0.27[d] (−2.30)**	
Chen and Tsai (2006) (T-Value)	Taiwan	1994-2003				0.28 (1.75)*	Syndicated Loan Announcements (40)
							Prior to (4)/After (36) Financial Crisis −0.50 (NS)/0.44 (1.86)*
							Large Firms (14)/Small Firms (26) −0.07 (NS)/0.58 (1.93)*
							High (20)/Low (20) Debt Ratio 0.53 (1.91)*/0.17 (NS)
							High (20)/Low (20) Fixed Assets to Total Assets 0.64 (1.95)*/0.06 (NS)
							More (14)/Fewer (26) Arrangers in Syndication −0.20 (NS)/0.65 (2.18)**
Fields et al. (2006)	US	1980-2003				1980-2003 0.46**	Loan Announcements (1111)
						1980-1989 0.60**	Renewals (594)/New (517) 0.48*/0.45 (NS)
						1990-1999 0.51**	
						2000-2003 0.13 (NS)	

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Mathieu et al. (2006) (T-Value)	Canada	1984-1997				2.19 (3.04)***	Bank Loan Agreements (122)
							Line of Credit (50)/ Term Loans (57)/ Both Terms Loans and Lines of Credit (15) 1.33 (NS)/2.47 (2.34)***/ 3.98 (2.86)***
							New (92)/Revised (27) Credit Agreements 1.97 (2.74)***/2.69 (NS)
							A Single Bank (40)/ Multiple Banks (82) 3.44 (2.60)***/1.58 (1.89)*
							Separate (60)/Combined (57) CEO-Chair 3.54 (3.50)***/0.55 (NS)
Le (2007) (Z-Value)	US	1995-2000				0.39 (3.22)***	All Syndications (2061)
							Revolving Credits (1151)/ Term Loans (387)/ Hybrid Loans (123) 0.47 (2.99)***/0.02 (NS)/ 0.48 (NS)
Shen et al. (2007) (T-Value)	China	January 1, 2005 - November 18, 2005				−0.50 (−2.07)**	Bank Loan Announcements (225)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Bailey et al. (2010) (T-Value)	China	1999-2004				−0.64 (−2.56)***	Bank Loan Announcements (285)
							Large Firm (142)/ Small Firm (142) −0.51 (NS)/−0.79 (−2.14)**
							Firms with Increase ROA (102)/ No Increase ROA (183) −0.20 (NS)/−0.90 (−2.84)***
							Firms with Increase ROE (100)/ No Increase ROE (167) −0.58 (NS)/−0.61 (−1.93)*
							With (12)/Without (273) Offshore Shares 0.30 (NS)/−0.68 (−2.74)***
							Firms with (19)/without (266) Financial Distress 0.31 (NS)/−0.71 (−2.82)***
							High (142)/Low (142) Percentage of Largest Shareholder's Ownership −1.13 (−3.23)***/−0.16 (NS)
							Non SOE (69)/SOE (216) Firms −0.40 (NS)/−0.72 (−2.40)***
							Firms in Heavy Industry (261)/ Other Industry (22) −0.63% (−2.41)***/−0.70 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
							Loans Used for Repaying Old Debts (66)/Other Purpose (219) −1.11 (−1.90)*/−0.50 (1.82)*
							Short (218) /Long (67) Maturity −0.66 (−2.22)**/−0.59 (NS)
							Loans Issued by Local Branches (142)/Headquarters or Main Provincial Branches (94) −0.63 (−1.75)*/−0.47 (NS)
							Big Four State Banks (118)/ Other Banks (94) −0.73 (−2.08)**/−0.58 (NS)
							State-owned Banks(278)/ Private Banks (3) −0.68 (−2.70)/4.70 (1.71)*
Kang and Liu (2008)	Japan	1985-2000				1.16***	Bank Loan Announcements (88)
Lee and Sharpe (2009) (T-Value)	US	1995-1999				0.97 (1.89)*	Clean Bank Loans (201)
							High (103)/Low (98) Monitoring Effort Lenders 1.76 (2.72)***/0.14 (NS)
							High (108)/Low (91)/ No (2) Credit Rating Lenders 1.92 (2.74)***/−0.12 (NS)/ −0.85 (NS)

Studies	Country	Period	All Loans (%)	Public Debts (%)	Private Placements (%)	Bank Loans (%)	Type and Number of Announcements Mainly Lender/Loan/Borrower Characteristics
Ongena and Roscovan (2009)	US	1980-2003				0.45***	Bank Loan Announcements (985)
							In-state (128)/ Neighbour-state (77)/ Non-neighbour State(523)/ Foreign (257) 0.44 (NS)/ −0.20 (NS)/0.32*/0.91***

This table lists the main findings of event studies tracing the impact of bank loan announcements on the stock prices of borrowing firms. The first column provides the studies citation. The second column reports the Country affiliation of the affected firms and the period during which the announcements were made are presented in the third column. The fourth column provides the market response to all loans announcements. The fifth column shows the market response to public debt announcements. The sixth column reports the market response to private placement announcements. The seventh column shows that the market response to bank loan announcements. The final column reports on the first row the type of announcement and the number of events and on the following row a number of mainly characteristics.

* indicates significant at the 0.1 level; ** indicates significant at the 0.05 level; *** indicates significant at the 0.01 level; NS = non-significant.

[a] T-test indicates insignificance at the 10% level (1.58), but the test statistic is significant at the 10% level (Billett et al., 1995)

[b] This figure is the mean buy-and-hold abnormal returns (Billett et al., 2006)

[c] Billett et al. (2006) found that when the event portfolio were equally-weighted, the borrowing firms' subsequent abnormal returns were average -0.47% monthly if using calendar time portfolio analysis.

[d] Billett et al. (2006) found that when the event portfolio were value-weighted, the borrowing firms' subsequent abnormal returns were average -0.27% monthly if using calendar time portfolio analysis.

Appendix B

Summary of Impact on Bank Loan Announcement Effects by Lender, Borrower and Loan Characteristics

Characteristics	Predicted impact on loan announcement abnormal return
Lender	
Bank	0
Monitoring Ability	+
Reputation/Credit Rating	+
Size	+
Monitoring Effort	+
Ranking	0
Location	0
Non-bank	0
Borrower	
Size	—
Credit Rating	—
Risk/Financial distress	+
Expropriation problem	—
Industry	0
Loan	
New	0
Borrower has existing relationship	+
No existing relationship/avoid rents	+
Renewal	+
Favourable	+
Unfavourable	—
Mixed	0
Restructuring	+
Borrower's distress known	+
Borrower's distress unknown	0
Maturity	0
Covenant/Collateral	+
Syndication	0
Purpose	0
Size	0

+ indicates positive effect, — indicates negative effects and 0 indicates that the effect is not sure

Appendix C

Definition and Computation of All Variables Used in the Study

Name	Definition	Type
BIG4_BANK	Dummy variable equals to 1 if the lender is one of Big Four state banks, and 0 otherwise	Dummy
BANK_OWNERSHIP	Dummy variable equals to 1 if the lender is one of the state owned or controlled banks, and 0 otherwise	Dummy
BANK_RANKING	Dummy variable equals to 1 if a loan is issued by a bank's local branches below the provincial level, and 0 otherwise	Dummy
BANK_LOCATION	Dummy variable equals to 1 if the bank in the province with the lower marketization level in credit allocation, and 0 otherwise	Dummy
BORROWER_SIZE	The natural logarithm of total asset	Continuous
	Dummy variable equals to 1 if the natural logarithm of total asset is less than the median the natural logarithm of total asset of all the listed firms in the relevant year, and 0 otherwise	Dummy
DCC	The divergence between cash-flow rights and control rights	Continuous
ROA	After tax profits divided by the book value of total assets	Continuous
DROA	The difference in ROA between year prior to bank loan announcement and bank loan announcement year	Continuous
Tq_70	The measurement of Tobin's Q taking into account of illiquidity discounts of 70%	Continuous
Tq_80	The measurement of Tobin's Q taking into account of illiquidity discounts of 80%	Continuous
DTq_70	The difference in Tobin's Q taking into account of illiquidity discounts of 70% between year prior to bank loan announcement and bank loan announcement year	Continuous
BORROWER_OWNERSHIP	Dummy variable equals to 1 if the state ultimately controls the company, and 0 otherwise	Dummy

Name	Definition	Type
Z-INDEX	The total shareholding owned by the largest shareholder divided by the total shareholding owned by the second largest shareholder	Continuous
CR5－CR1	The total shareholding owned by the top five shareholders minus the total shareholding owned by the largest shareholder	Continuous
BOARD_SIZE	The number of directors on the board	Continuous
BOARD_COMPOSITION	The percentage of independent directors on the board	Continuous between (0,1)
DUALITY	Dummy variable equals to 1 if the one person holds both positions, and 0 otherwise	Dummy
BOARD_MEETING	The number of board meetings per year	Continuous
SB_SIZE	The natural logarithm of the total number of supervisory board members	Continuous
SB_MEETING	The number of supervisory meetings per year	Continuous
BHN	Dummy variable equals to 1 if the borrowers issue B or H or N or other shares not traded on the SHSE and SZSE, and 0 otherwise	Dummy
ST	Dummy variable equals to 1 if the borrowers in ST status, and 0 otherwise	Dummy
INDUSTRY_1	Dummy variable equals to 1 if the borrower is construction industry type, and 0 otherwise	Dummy
INDUSTRY_2	Dummy variable equals to 1 if the borrower is farming, forestry, animal husbandry and fishery industry type, and 0 otherwise	Dummy
INDUSTRY_3	Dummy variable equals to 1 if the borrower is information technology industry type, and 0 otherwise	Dummy
INDUSTRY_4	Dummy variable equals to 1 if the borrower is integrated industry type, and 0 otherwise	Dummy
INDUSTRY_5	Dummy variable equals to 1 if the borrower is manufacturing industry type, and 0 otherwise	Dummy
INDUSTRY_6	Dummy variable equals to 1 if the borrower is production of supply of power, gas and water industry type, and 0 otherwise	Dummy
INDUSTRY_7	Dummy variable equals to 1 if the borrower is real estate industry type, and 0 otherwise	Dummy
INDUSTRY_8	Dummy variable equals to 1 if the borrower is social services industry type, and 0 otherwise	Dummy
INDUSTRY_9	Dummy variable equals to 1 if the borrower is transmitting, culture industry type, and 0 otherwise	Dummy
INDUSTRY_10	Dummy variable equals to 1 if the borrower is transportation, storage industry type, and 0 otherwise	Dummy
INDUSTRY_11	Dummy variable equals to 1 if the borrower is wholesale and retail trades industry type, and 0 otherwise	Dummy

Name	Definition	Type
LOAN_SIZE	Total amount of loan divide by the total asset at the end of last year	Continuous
	Dummy variable equals to 1 if the loan size is more than the median loan size of all loans in the relevant year, and 0 otherwise	Dummy
LOAN _MATURITY	The end of the life of the loan	Continuous
SYDICATION	Dummy variable equals to 1 if the loan is the syndication, and 0 otherwise	Dummy
COVENANTS/COLLATERAL	Dummy variable equals to 1 if the loan is with covenants/collateral, and 0 otherwise	Dummy
PURPOSE_CAPITAL	Dummy variable equals to 1 if the loan is used for capital expenditure, and 0 otherwise	Dummy
PURPOSE_ REPAY	Dummy variable equals to 1 if the loan is used for repaying old debts, and 0 otherwise	Dummy
PURPOSE_ LONG	Dummy variable equals to 1 if the loan is used for long term investment, and 0 otherwise	Dummy
PURPOSE_NO	Dummy variable equals to 1 if the loan has no specific purpose, and 0 otherwise	Dummy
YEAR_1	Dummy variable equals to 1 if the bank loan announcement year is 1998, and 0 otherwise	Dummy
YEAR_2	Dummy variable equals to 1 if the bank loan announcement year is 1999, and 0 otherwise	Dummy
YEAR_3	Dummy variable equals to 1 if the bank loan announcement year is 2000, and 0 otherwise	Dummy
YEAR_4	Dummy variable equals to 1 if the bank loan announcement year is 2001, and 0 otherwise	Dummy
YEAR_5	Dummy variable equals to 1 if the bank loan announcement year is 2002, and 0 otherwise	Dummy
YEAR_6	Dummy variable equals to 1 if the bank loan announcement year is 2003, and 0 otherwise	Dummy
YEAR_7	Dummy variable equals to 1 if the bank loan announcement year is 2004, and 0 otherwise	Dummy

Appendix D

Correlation Matrix for Regression Variables

	BIG4_ BANK	BANK_ OWNERSHIP	BANK_ RANKING	BANK_ LOCATION
BIG4_BANK				
BANK_OWNERSHIP	0.208**			
BANK_RANKING	0.134**	0.147**		
BANK_LOCATION	0.098*	0.012	-0.002	
BORROWER_SIZE	0.007	0.001	-0.234**	0.012
DCC	-0.068	-0.023	0.011	-0.075
DROA	0.010	-0.025	0.034	0.033
DTq_70	-0.018	-0.026	-0.115*	-0.057
BORROWER_OWNERSHIP	0.184**	0.022	0.080	0.143**
Z-INDEX	0.014	0.004	0.061	-0.040
CR5－CR1	-0.059	-0.086	-0.098*	-0.016
BOARD_SIZE	-0.006	0.005	0.023	0.117**
BOARD_COMPOSITION	-0.010	-0.006	0.073	0.028
DUALITY	-0.025	0.071	0.090	0.080
BOARD_MEETING	-0.107*	-0.061	-0.029	-0.087
SB_SIZE	0.048	-0.021	-0.148**	0.005
SB_MEETING	0.013	0.041	0.064	-0.079
BHN	0.011	-0.037	0.045	-0.132**
ST	0.069	-0.033	0.031	-0.026
INDUSTRY_1	-0.005	0.024	-0.050	-0.001
INDUSTRY_2	0.049	0.019	-0.023	0.100*
INDUSTRY_3	-0.109*	0.004	-0.054	-0.176**
INDUSTRY_4	-0.267**	-0.024	0.023	-0.050
INDUSTRY_5	0.207**	0.067	0.003	0.187**
INDUSTRY_6	0.025	-0.123**	-0.158**	0.010
INDUSTRY_7	-0.040	0.011	0.103*	-0.171**
INDUSTRY_8	0.130**	0.035	0.003	0.013
INDUSTRY_9	0.000	0.022	0.071	0.181**
INDUSTRY_10	-0.048	-0.056	0.046	-0.062
INDUSTRY_11	0.003	-0.029	-0.072	0.080
LOAN_SIZE	0.043	0.040	0.000	-0.051
LOAN _MATURITY	0.178**	-0.027	-0.118*	0.095*
SYDICATION	N	N	N	N
COVENANTS/COLLATERAL	-0.127**	0.038	0.039	0.075
PURPOSE_CAPITAL	0.050	0.068	0.078	0.005
PURPOSE_REPAY	0.042	0.031	-0.122**	-0.027
PURPOSE_NO	-0.185**	-0.088	-0.060	0.026
YEAR_1	-0.054	0.008	-0.060	-0.032
YEAR_2	0.036	0.021	-0.085	-0.013
YEAR_3	0.070	0.037	-0.129**	-0.030
YEAR_4	0.042	0.005	-0.035	0.085
YEAR_5	0.017	0.021	-0.031	-0.085
YEAR_6	-0.019	-0.006	0.073	0.050
YEAR_7	-0.071	-0.045	0.080	-0.013

	BORROWER_ SIZE	DCC	DROA	DTq_70
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC	-0.033			
DROA	0.025	-0.007		
DTq_70	0.207**	-0.029	-0.171**	
BORROWER_OWNERSHIP	0.062	-0.351**	0.105*	-0.035
Z-INDEX	0.065	-0.007	0.066	0.062
CR5−CR1	-0.124**	0.015	-0.087	-0.109*
BOARD_SIZE	0.065	-0.192**	0.016	0.033
BOARD_COMPOSITION	0.018	0.053	-0.052	0.087
DUALITY	-0.038	-0.074	-0.030	-0.076
BOARD_MEETING	-0.098*	0.060	-0.208**	0.031
SB_SIZE	0.219**	-0.167**	0.054	0.113*
SB_MEETING	-0.113**	-0.105*	0.043	-0.078
BHN	0.089*	0.007	0.033	0.012
ST	0.016	-0.072	0.164**	-0.020
INDUSTRY_1	-0.023	0.010	-0.014	0.009
INDUSTRY_2	0.088*	-0.006	0.007	0.010
INDUSTRY_3	-0.032	0.078	-0.002	-0.021
INDUSTRY_4	0.006	0.088*	0.005	0.053
INDUSTRY_5	0.002	-0.023	0.029	-0.094*
INDUSTRY_6	0.069	-0.102*	0.018	0.049
INDUSTRY_7	-0.050	-0.077	-0.107*	0.045
INDUSTRY_8	-0.016	-0.081	0.012	0.052
INDUSTRY_9	-0.083	-0.076	0.018	-0.106*
INDUSTRY_10	0.043	0.100*	0.028	0.004
INDUSTRY_11	0.053	0.084	0.046	0.019
LOAN_SIZE	-0.120**	0.031	0.064	-0.183**
LOAN _MATURITY	0.201**	-0.016	0.034	0.096*
SYDICATION	-0.154**	0.000	-0.016	-0.067
COVENANTS/COLLATERAL	-0.120**	-0.046	0.001	0.013
PURPOSE_CAPITAL	-0.105*	-0.013	-0.030	-0.067
PURPOSE_REPAY	-0.038	0.020	0.059	0.078
PURPOSE_NO	0.036	0.019	0.021	0.025
YEAR_1	0.097*	0.055	-0.001	0.025
YEAR_2	0.125**	-0.012	0.004	0.025
YEAR_3	0.115**	0.009	0.023	0.240**
YEAR_4	0.019	-0.043	-0.018	-0.264**
YEAR_5	-0.048	-0.007	0.061	-0.031
YEAR_6	-0.053	-0.018	0.037	0.003
YEAR_7	-0.024	0.054	-0.097*	0.117**

	BORROWER_ OWNERSHIP	Z-INDEX	CR5－CR1	BOARD_ SIZE
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX	0.194**			
CR5－CR1	-0.315**	-0.426**		
BOARD_SIZE	0.227**	0.052	-0.093*	
BOARD_COMPOSITION	-0.033	-0.011	-0.005	0.087
DUALITY	0.097*	0.002	-0.070	0.044
BOARD_MEETING	-0.148**	-0.001	0.083	0.009
SB_SIZE	0.070	-0.049	0.030	0.334**
SB_MEETING	0.143**	-0.027	-0.061	0.036
BHN	0.024	-0.014	0.005	-0.020
ST	0.136**	0.124**	-0.110*	0.065
INDUSTRY_1	-0.009	0.111*	-0.067	-0.043
INDUSTRY_2	0.033	-0.038	0.085	0.010
INDUSTRY_3	-0.078	-0.053	0.177**	-0.148**
INDUSTRY_4	-0.231**	-0.101*	0.132**	0.029
INDUSTRY_5	0.041	0.020	-0.109*	-0.062
INDUSTRY_6	0.104*	-0.055	0.097*	0.210**
INDUSTRY_7	-0.029	-0.012	-0.095*	-0.102*
INDUSTRY_8	0.108*	-0.039	-0.040	0.034
INDUSTRY_9	0.084	-0.020	-0.088*	0.230**
INDUSTRY_10	0.155**	0.119**	-0.091*	0.028
INDUSTRY_11	-0.074	0.121**	0.138**	0.044
LOAN_SIZE	0.019	-0.039	-0.037	-0.071
LOAN _MATURITY	0.041	0.053	-0.095*	-0.006
SYDICATION	0.065	-0.097*	-0.015	0.054
COVENANTS/COLLATERAL	-0.104*	0.031	-0.063	0.034
PURPOSE_CAPITAL	-0.045	-0.034	0.060	-0.005
PURPOSE_REPAY	-0.062	-0.020	0.020	0.024
PURPOSE_NO	0.011	0.076	-0.025	-0.075
YEAR_1	-0.096*	-0.022	0.065	0.000
YEAR_2	0.015	0.086	-0.090*	-0.001
YEAR_3	-0.028	-0.013	-0.002	-0.134**
YEAR_4	0.107*	-0.045	0.061	-0.046
YEAR_5	0.053	0.021	0.000	-0.071
YEAR_6	-0.069	-0.039	-0.038	-0.030
YEAR_7	-0.041	0.042	0.002	0.215**

	BOARD_ COMPOSITION	DUALITY	BOARD_ MEETING	SB_SIZE
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX				
CR5−CR1				
BOARD_SIZE				
BOARD_COMPOSITION				
DUALITY	-0.064			
BOARD_MEETING	0.210**	0.018		
SB_SIZE	0.021	0.071	-0.022	
SB_MEETING	0.022	0.047	0.314**	-0.088*
BHN	0.043	0.082	0.067	0.093*
ST	0.138**	-0.064	-0.028	0.084
INDUSTRY_1	-0.089	0.011	0.062	-0.109*
INDUSTRY_2	-0.017	-0.009	-0.051	-0.003
INDUSTRY_3	0.008	-0.115*	-0.027	-0.171**
INDUSTRY_4	0.048	0.099*	-0.003	0.213**
INDUSTRY_5	-0.036	-0.101*	-0.129**	0.122**
INDUSTRY_6	-0.147**	0.073	0.052	0.144**
INDUSTRY_7	0.052	0.021	0.160**	-0.192**
INDUSTRY_8	0.090	0.080	0.003	-0.031
INDUSTRY_9	0.059	0.051	-0.042	-0.103*
INDUSTRY_10	-0.037	0.035	-0.126**	-0.076
INDUSTRY_11	0.069	-0.041	0.175**	0.035
LOAN_SIZE	0.060	0.019	-0.005	-0.077
LOAN _MATURITY	0.052	-0.025	-0.165**	0.090
SYDICATION	-0.061	-0.040	0.086	0.081
COVENANTS/COLLATERAL	-0.047	0.107*	0.018	-0.048
PURPOSE_CAPITAL	0.034	-0.027	0.028	-0.012
PURPOSE_REPAY	-0.035	-0.098*	0.073	0.006
PURPOSE_NO	-0.070	0.045	0.013	-0.039
YEAR_1	N	-0.066	-0.098*	-0.051
YEAR_2	N	0.051	-0.116**	-0.028
YEAR_3	N	-0.110*	-0.153**	0.050
YEAR_4	N	0.008	-0.176**	0.071
YEAR_5	-0.808**	0.034	-0.108*	-0.092*
YEAR_6	0.223**	0.050	0.185**	-0.031
YEAR_7	0.593**	-0.047	0.192**	0.062

	SB_MEETING	BHN	ST	INDUSTRY_1
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX				
CR5−CR1				
BOARD_SIZE				
BOARD_COMPOSITION				
DUALITY				
BOARD_MEETING				
SB_SIZE				
SB_MEETING				
BHN	0.042			
ST	-0.060	-0.037		
INDUSTRY_1	0.050	-0.028	0.037	
INDUSTRY_2	-0.033	-0.022	-0.073	-0.015
INDUSTRY_3	-0.057	-0.022	-0.107*	-0.040
INDUSTRY_4	-0.130**	-0.036	-0.022	-0.046
INDUSTRY_5	0.010	0.185**	0.004	-0.112*
INDUSTRY_6	0.013	-0.050	0.131**	-0.033
INDUSTRY_7	0.152**	-0.090*	-0.025	-0.059
INDUSTRY_8	0.077	-0.040	0.107*	-0.027
INDUSTRY_9	-0.050	-0.026	0.068	-0.017
INDUSTRY_10	-0.065	-0.012	-0.095*	-0.035
INDUSTRY_11	-0.006	-0.040	0.031	-0.027
LOAN_SIZE	0.037	-0.058	0.065	-0.049
LOAN _MATURITY	-0.089	0.091	0.120**	-0.042
SYDICATION	0.074	-0.390**	-0.006	0.014
COVENANTS/COLLATERAL	0.117**	-0.126**	-0.094*	0.081
PURPOSE_CAPITAL	0.018	-0.074	0.059	-0.050
PURPOSE_REPAY	0.058	0.024	-0.103*	-0.024
PURPOSE_NO	-0.031	0.041	-0.065	0.111*
YEAR_1	-0.061	0.149**	0.034	-0.009
YEAR_2	-0.114*	-0.026	-0.046	-0.017
YEAR_3	-0.162**	0.006	-0.025	0.044
YEAR_4	-0.181**	-0.057	-0.017	-0.015
YEAR_5	0.037	-0.053	-0.079	0.055
YEAR_6	0.264**	-0.055	0.002	-0.014
YEAR_7	-0.037	0.118**	0.121**	-0.043

	INDUSTRY _2	INDUSTRY _3	INDUSTRY _4	INDUSTRY _5
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX				
CR5—CR1				
BOARD_SIZE				
BOARD_COMPOSITION				
DUALITY				
BOARD_MEETING				
SB_SIZE				
SB_MEETING				
BHN				
ST				
INDUSTRY_1				
INDUSTRY_2				
INDUSTRY_3	-0.032			
INDUSTRY_4	-0.037	-0.100*		
INDUSTRY_5	-0.091*	-0.243**	-0.281**	
INDUSTRY_6	-0.027	-0.072	-0.083	-0.201**
INDUSTRY_7	-0.048	-0.129**	-0.149**	-0.362**
INDUSTRY_8	-0.022	-0.058	-0.068	-0.164**
INDUSTRY_9	-0.014	-0.038	-0.043	-0.105*
INDUSTRY_10	-0.029	-0.077	-0.089*	-0.216**
INDUSTRY_11	-0.022	-0.058	-0.068	-0.164**
LOAN_SIZE	0.004	0.016	-0.070	-0.064
LOAN _MATURITY	0.034	-0.095*	-0.081	0.057
SYDICATION	0.011	-0.045	0.034	-0.040
COVENANTS/COLLATERAL	-0.023	-0.061	0.124**	0.041
PURPOSE_CAPITAL	0.010	0.046	-0.047	-0.015
PURPOSE_REPAY	-0.019	-0.009	0.055	0.046
PURPOSE_NO	-0.014	0.005	0.058	-0.051
YEAR_1	-0.007	-0.019	-0.022	0.012
YEAR_2	-0.014	0.021	-0.043	0.025
YEAR_3	-0.024	0.009	0.023	0.041
YEAR_4	0.057	0.042	0.004	0.064
YEAR_5	0.017	0.023	-0.056	-0.045
YEAR_6	-0.026	-0.063	0.000	0.049
YEAR_7	-0.021	0.000	0.061	-0.091*

	INDUSTRY_6	INDUSTRY_7	INDUSTRY_8	INDUSTRY_9
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX				
CR5－CR1				
BOARD_SIZE				
BOARD_COMPOSITION				
DUALITY				
BOARD_MEETING				
SB_SIZE				
SB_MEETING				
BHN				
ST				
INDUSTRY_1				
INDUSTRY_2				
INDUSTRY_3				
INDUSTRY_4				
INDUSTRY_5				
INDUSTRY_6				
INDUSTRY_7	-0.107*			
INDUSTRY_8	-0.048	-0.087		
INDUSTRY_9	-0.031	-0.056	-0.025	
INDUSTRY_10	-0.064	-0.115*	-0.052	-0.033
INDUSTRY_11	-0.048	-0.087	-0.039	-0.025
LOAN_SIZE	-0.036	0.146**	0.037	-0.008
LOAN _MATURITY	0.132**	-0.036	0.002	-0.041
SYDICATION	0.024	0.044	0.020	0.013
COVENANTS/COLLATERAL	-0.011	-0.011	-0.187**	0.105*
PURPOSE_CAPITAL	-0.045	-0.007	0.089*	0.033
PURPOSE_REPAY	0.059	-0.077	-0.035	-0.022
PURPOSE_NO	0.040	-0.034	-0.029	-0.029
YEAR_1	-0.015	0.058	-0.013	-0.008
YEAR_2	-0.031	-0.013	-0.025	-0.016
YEAR_3	-0.052	0.012	-0.043	-0.027
YEAR_4	-0.102*	-0.032	0.034	-0.053
YEAR_5	0.070	0.031	-0.025	-0.041
YEAR_6	0.009	0.002	-0.026	0.030
YEAR_7	0.040	-0.015	0.055	0.074

	INDUSTRY _10	INDUSTRY _11	LOAN_SIZE	LOAN_ MATURITY
BIG4_BANK				
BANK_OWNERSHIP				
BANK_RANKING				
BANK_LOCATION				
BORROWER_SIZE				
DCC				
DROA				
DTq_70				
BORROWER_OWNERSHIP				
Z-INDEX				
CR5—CR1				
BOARD_SIZE				
BOARD_COMPOSITION				
DUALITY				
BOARD_MEETING				
SB_SIZE				
SB_MEETING				
BHN				
ST				
INDUSTRY_1				
INDUSTRY_2				
INDUSTRY_3				
INDUSTRY_4				
INDUSTRY_5				
INDUSTRY_6				
INDUSTRY_7				
INDUSTRY_8				
INDUSTRY_9				
INDUSTRY_10				
INDUSTRY_11	-0.052			
LOAN_SIZE	-0.010	0.023		
LOAN _MATURITY	0.056	0.021	0.073	
SYDICATION	-0.056	0.020	0.021	-0.209**
COVENANTS/COLLATERAL	-0.121**	0.013	-0.076	0.040
PURPOSE_CAPITAL	0.034	-0.040	0.013	-0.279**
PURPOSE_REPAY	-0.046	0.026	0.010	0.059
PURPOSE_NO	-0.039	0.098*	-0.114**	-0.034
YEAR_1	-0.017	-0.013	-0.004	0.181**
YEAR_2	0.097*	-0.025	0.053	0.098*
YEAR_3	-0.016	-0.043	0.087	0.031
YEAR_4	0.005	-0.054	0.065	0.046
YEAR_5	0.065	-0.025	-0.070	-0.073
YEAR_6	-0.030	-0.003	0.028	-0.027
YEAR_7	-0.056	0.103*	-0.067	-0.012

	SYDICATION	COVENANTS/COLLATERAL
BIG4_BANK		
BANK_OWNERSHIP		
BANK_RANKING		
BANK_LOCATION		
BORROWER_SIZE		
DCC		
DROA		
DTq_70		
BORROWER_OWNERSHIP		
Z-INDEX		
CR5－CR1		
BOARD_SIZE		
BOARD_COMPOSITION		
DUALITY		
BOARD_MEETING		
SB_SIZE		
SB_MEETING		
BHN		
ST		
INDUSTRY_1		
INDUSTRY_2		
INDUSTRY_3		
INDUSTRY_4		
INDUSTRY_5		
INDUSTRY_6		
INDUSTRY_7		
INDUSTRY_8		
INDUSTRY_9		
INDUSTRY_10		
INDUSTRY_11		
LOAN_SIZE		
LOAN _MATURITY		
SYDICATION		
COVENANTS/COLLATERAL	0.083	
PURPOSE_CAPITAL	0.005	-0.158**
PURPOSE_REPAY	0.018	0.073
PURPOSE_NO	-0.044	0.133**
YEAR_1	-0.312**	-0.013
YEAR_2	-0.147**	0.007
YEAR_3	0.022	0.070
YEAR_4	0.042	-0.046
YEAR_5	0.060	-0.047
YEAR_6	0.016	0.086
YEAR_7	0.011	-0.029

	PURPOSE_ CAPITAL	PURPOSE_ REPAY	PURPOSE_ NO
BIG4_BANK			
BANK_OWNERSHIP			
BANK_RANKING			
BANK_LOCATION			
BORROWER_SIZE			
DCC			
DROA			
DTq_70			
BORROWER_OWNERSHIP			
Z-INDEX			
CR5—CR1			
BOARD_SIZE			
BOARD_COMPOSITION			
DUALITY			
BOARD_MEETING			
SB_SIZE			
SB_MEETING			
BHN			
ST			
INDUSTRY_1			
INDUSTRY_2			
INDUSTRY_3			
INDUSTRY_4			
INDUSTRY_5			
INDUSTRY_6			
INDUSTRY_7			
INDUSTRY_8			
INDUSTRY_9			
INDUSTRY_10			
INDUSTRY_11			
LOAN_SIZE			
LOAN _MATURITY			
SYDICATION			
COVENANTS/COLLATERAL			
PURPOSE_CAPITAL			
PURPOSE_REPAY	-0.227**		
PURPOSE_NO	-0.680**	-0.093*	
YEAR_1	-0.016	-0.011	-0.033
YEAR_2	0.033	-0.022	-0.029
YEAR_3	0.005	0.020	-0.019
YEAR_4	0.013	-0.074	0.023
YEAR_5	-0.085	0.027	0.088*
YEAR_6	0.071	-0.001	-0.080
YEAR_7	-0.001	0.034	-0.013

	YEAR _1	YEAR _2	YEAR _3	YEAR _4	YEAR _5	YEAR _6
BIG4_BANK						
BANK_OWNERSHIP						
BANK_RANKING						
BANK_LOCATION						
BORROWER_SIZE						
DCC						
DROA						
DTq_70						
BORROWER_ OWNERSHIP						
Z-INDEX						
CR5−CR1						
BOARD_SIZE						
BOARD_COMPOSITION						
DUALITY						
BOARD_MEETING						
SB_SIZE						
SB_MEETING						
BHN						
ST						
INDUSTRY_1						
INDUSTRY_2						
INDUSTRY_3						
INDUSTRY_4						
INDUSTRY_5						
INDUSTRY_6						
INDUSTRY_7						
INDUSTRY_8						
INDUSTRY_9						
INDUSTRY_10						
INDUSTRY_11						
LOAN_SIZE						
LOAN _MATURITY						
SYDICATION						
COVENANTS/ COLLATERAL						
PURPOSE_CAPITAL						
PURPOSE_REPAY						
PURPOSE_NO						
YEAR_1						
YEAR_2	-0.008					
YEAR_3	-0.014	-0.027				
YEAR_4	-0.027	-0.053	-0.090*			
YEAR_5	-0.038	-0.077	-0.129**	-0.252**		
YEAR_6	-0.038	-0.077	-0.130**	-0.255**	-0.365**	
YEAR_7	-0.037	-0.073	-0.124**	-0.242**	-0.347**	-0.350**

N indicates it can not be computed because at least one of the variables is constant.

** indicates correlation is significant at the 0.1 level (2-tailed).

* indicates correlation is significant at the 0.05 level (2-tailed).